

Mukden Medical College (1911–1949): an outpost of Edinburgh medicine in northeast China.

Part I: 1882–1917; building the foundations and opening the College

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ABSTRACT Scottish physician Dugald Christie, an 1881 licentiate of both the RCPE and the RCSEd, was the first medical missionary sent to China by the United Presbyterian Church of Scotland. He commenced practice in the city of Mukden (Shenyang) in Manchuria in 1883. In 1892 he started to train student assistants and in 1911 founded the Mukden Medical College (Fengtian yi ke da xue). Edinburgh-trained physicians and surgeons largely staffed this college, the first Western medical school in Manchuria.

KEYWORDS Chinese history, Dugald Christie, medical education, missions and missionaries, Mukden Medical College, South Manchuria Medical College, University of Edinburgh

LIST OF ABBREVIATIONS China Medical Board (CMB), China Medical Missionary Association (CMMA), Mukden Medical College (MMC), Peking Union Medical College (PUMC), Royal College of Physicians of Edinburgh (RCPE), Royal College of Surgeons of Edinburgh (RCSEd), South Manchuria Medical College (SMCC), South Manchurian Railway (SMR)

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INTRODUCTION

Edinburgh has been described as the most powerful medical magnet in Europe, and the international influence of Scottish medical education in general, and the Edinburgh medical school in particular, has long been recognised.¹ Almost certainly the first Western physician to practise in Manchuria was James Watson, who graduated from the University of Edinburgh in 1863. Watson, who primarily served the foreign community, was the physician of the British consulate and the Chinese Imperial Maritime Customs in Newchwang (Yingkou) from 1865–85.² The Irish Presbyterian JM Hunter practiced there from 1869 to 1884, and in the early 1880s the United Presbyterian Church appointed two Edinburgh trained physicians, AM Westwater and Dugald Christie. Christie was to become the most celebrated and influential Western medical pioneer in that part of the world.^{3–7}

DUGALD CHRISTIE

Christie, born in Kingshouse, Argyle, in 1855, began his medical training in Edinburgh in 1877. Much influenced by the pioneer of missionary education Alexander Duff, during his studies he was active in several 'missions' in Edinburgh. It was thus not

surprising that when he was licensed to practice in 1881 he volunteered for foreign mission work. He and his new wife sailed to China in July 1882 and, after landing in Newchwang, travelled the hundred miles inland to the provincial capital Mukden (Shenyang). Newchwang had been designated a Treaty Port by the (unequal) Treaty of Tientsin (Tianjin) in 1858. Irish Presbyterians had established a mission there in 1869; United Presbyterians joined them in 1872 and by 1874 there was one congregation with thirteen members.⁸ French Catholics had visited Mukden in 1832 and had established a mission there in 1838.^{9,10} Although the United Presbyterians had started mission work in Mukden in the 1870s, they had very limited accommodation; as Christie was unable to find any Chinese person willing to rent him a house, he was forced to return to Newchwang. He spent the next year learning Chinese, which he said was greatly helped by his knowledge of Gaelic. When he returned to Mukden in 1883 he was successful in finding a property beside the Small (Wanchuan) River. It is worth noting that, though Newchwang and Mukden were only just over 100 miles apart, travel was very difficult – even the famous Victorian traveller Isabella Bird took eight days to make the journey by riverboat in 1894 and was 'in ceaseless dread of pirates'.¹¹

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Pirates remained a feature of the marshes near Newchwang until the 1930s; four British officers from the coastal steamer Nanchang were held hostage there for over five months in 1933.^{12,13}

ESTABLISHING A HOSPITAL AND BUILDING TRUST

On his return to Mukden in 1883, Christie immediately set up a clinic where his public cataract extractions and his fluency in Chinese were particularly helpful in breaking down resistance to both a foreigner and foreign medicine. Christie had five basic principles:⁵ to be courteous and polite to Chinese officials and as far as possible to follow Chinese customs, to offer all medical care without charge, to train assistants, to spend the hospital's limited funds with great care, and to offer his services freely during emergencies. As will be seen, his background, personality, language skills and principles all played a part in the success of his endeavours. Bird¹¹ notes that 'Dr. Christie is a trusted friend as well as the medical advisor of many of the leading officials and their wives ... [and] gives illustrated popular scientific lectures in the winter...'. In 1886 his clinic recorded about 10,000 patient visits and performed 251 operations. On 8 November 1887 a new larger hospital was opened; it included a dispensary, wards for 50 patients, and a house for female patients – the first women's hospital in Manchuria. In 1885, he started teaching and offering practical instruction to his Chinese assistants, and in 1892 he began a more formal training programme, sometimes referred to as the 'Shengjing Medical School'.^{14–17} Christie gave his assistants practical instruction in the morning when they all worked on the wards and in the afternoon lectured on various branches of medical sciences.

Manchuria was not a peaceful place in these years. When the Japanese invaded from Korea in 1884, all Westerners had to leave Mukden; the hospital was closed for ten months.¹⁸ Christie and his family returned to Newchwang, where he was instrumental in establishing a Red Cross hospital. According to Wang¹⁶ several of the assistants who were enrolled in Christie's classes accompanied him and gained experience working in the hospital. In July 1895, after the Japanese were forced to retreat, they returned to Mukden. The students then 'passed the necessary examinations and received diplomas certifying their competence to practise medicine and surgery. Sometime afterwards five of them were recognized by the Provincial government ...'.

In 1896 a larger women's hospital was built and placed under the charge of two Edinburgh-trained doctors, Mary Horner and Katherine Kirk.¹⁹ Although many missionaries were appreciative of Chinese culture and spoke Chinese, some were less able, or willing, to participate in local activities.^{20,21} Several were also keen explorers and mapmakers; Christie was made a Fellow of

the Royal Scottish Geographical Society, and the Irish Presbyterian Alexander Crawford, a Fellow of the Royal Geographical Society, for these activities. Christie's interest and enthusiastic involvement in local events and emergencies and his ability to talk to Chinese officials and patients in their own language certainly helped to create an atmosphere in which his hospital could thrive and his plans for a real medical college could proceed.

Christie wrote, 'There have been many risings and troubles, wars and rumours of wars, in Manchuria during these 25 years [1883–1908] ... Brigands and foot-pads have all along provided a pretty steady supply of wounded patients and in the ten years between 1894 and 1904 the country has been devastated by three wars.'¹⁸ The 1899–1900 Boxer uprising was the most unsettling of these events, and the Christies had to flee to Newchwang and Japan. This time the hospital in Mukden was burned to the ground. Most of the foreigners who remained in the city (mainly French missionaries, including the Bishop, Mgr Laurent Guillon) and many Chinese Christians, were killed. Eventually the Russians, who used the unrest as an excuse to extend their influence, re-established order. In November 1900 Christie managed to return briefly to Mukden; but, with the hospital destroyed and equipment looted, it was clear that it would take time to re-establish its services. He therefore arranged for five of his Chinese assistants to open a medicine shop. He returned to Edinburgh to raise funds and recover his strength; while there he enrolled for the University of Edinburgh's Certificate in Tropical Medicine, which he received in 1903.

When Christie and his family returned to Mukden in 1902 he immediately rented space for a dispensary with room for a few in-patients. However, Japan and the Western powers were unhappy with Russia's influence in Manchuria. On 8 February 1904 Japan attacked Russia at Port Arthur (Lushun/Dalian) and declared war two days later. Manchuria was again plunged into war and again Christie was active in Red Cross activities. Christie and his colleagues looked after about 80,000 refugees, spread over seventeen buildings in Mukden, and continued to build trust in all sections of the community by treating Chinese, Russian and Japanese wounded. The Russians were eventually driven out of Mukden and again the Japanese occupied the city. Eventually, in 1905, with the Treaty of Portsmouth, New Hampshire, the Chinese government regained control, although the Japanese were now given the concession to run the railway that had formerly been controlled by the Russians. The SMR was established on 7 July 1906 when a Japanese Imperial Ordinance established the company (known in Japanese as Minami Manshu Tetsudo Kabushiki Kaisha). The SMR has been described as 'the backbone of Japanese enterprise in Manchuria'.²²

Rebuilding the hospital started in spring 1906, using funds (£2,700) paid as an indemnity for the destruction of the

hospital in 1900, funds donated by supporters in Scotland, funds raised locally thanks to the support of the Governor General and the provision of free transport for building materials from both the Chinese Government Railway and the SMR. Most of the new hospital, with modern X-ray equipment, was completed by 5 March 1907 when the Mukden Free Hospital (Sheng Ching shih yi yuan) was formally re-opened by the Governor General of Manchuria, Chao Er-sun. Thanks to significant donations from the local Chinese business community and grateful patients, the remainder of the building, with accommodation for 110 in-patients, was completed by November 1907. In its first year of operation (with only three of its five wards in use) the hospital reported 23,652 out-patient visits, 479 in-patients and 1,209 operations. In 1905, according to Tsai,¹⁹ the Mukden Hospital (presumably a temporary one) had four doctors, all Edinburgh trained.

Although several Jesuits had visited China in the mid-seventeenth century and had introduced some Western medical ideas, Western physicians had been working systematically in China only since Thomas Colledge and Peter Parker arrived in the 1820s and 1830s.²³ In the 1850s Benjamin Hobson wrote several books in Chinese describing current Western medical practices and created the first Chinese–English medical lexicon; and in 1864 James Henderson²⁴ described the current state of Chinese medicine. Western interest in foreign mission work in general and medical missions in particular increased greatly in the latter part of the nineteenth century; during the 53 years from 1834 to 1887 a total of 150 medical missionaries were sent to China, but in only three years (1887–1890) 46 arrived.²⁵ From the 1840s there was interest in providing Chinese students with formal Western medical education and in 1846 Hobson²⁶ tried to raise funds for a medical school for Chinese people in Hong Kong. The first Chinese person to receive a medical degree in Europe, Wong Fun, became the first Chinese graduate of the University of Edinburgh in 1855; Wong's thesis entitled 'Functional disorders of the stomach' received a commendation.²⁷ Though some Chinese students attended medical schools abroad, it was clearly better to train students locally; thus, following JK Mackenzie's establishment of a school in Tientsin in 1881, several others were established in China between then and 1914. Many of these schools began by teaching 'apprentices' to assist in the mission hospitals. In 1905, there were reported to be 301 Western physicians in the country; interestingly, 94 of them were women.²⁵ Of course, most of these foreign doctors were clinicians working in clinics and hospitals and, at most, were training a few apprentices. Bowers²⁸ deals exhaustively with the efforts by foreign governments and individuals to establish more formal Western medical education in China. The League of Nations published two reports that discussed the subject. In 1930 they made proposals 'on health matters' that included a chapter on medical education,²⁹ but this report's use of outdated figures was severely

criticised³⁰ and Knud Faber prepared an updated report specifically on medical education for the League in 1931.³¹ Shields notes that 'most of the medical missionaries seemed to regard the small, inefficient and understaffed training schools as sufficient for the needs of China. They were so engrossed with the immediate, pressing needs of their own work that they did not see far enough into the future.' On the same lines, Balme remarks, 'It was not long before the other [mission] centres followed Peking's lead and Missionary Medical Colleges, both denominational and Union, were opened all over the country, with commendable zeal but questionable wisdom.'¹⁵ The CMMA was founded in 1886. At its inaugural conference in 1890, the 30 doctors attending made a plea for more efficient teaching. It was suggested, that 'unless it [teaching] is done systematically it would be better not done at all.'²⁵

PLANNING A MEDICAL COLLEGE

By 1908, with the hospital rebuilt, Christie turned to the creation of a formal medical college in Mukden. Although he was continuing to teach his assistants (and he reports that twelve were being trained in 1908),¹⁸ he felt strongly that much more was needed. As noted above, several Western medical schools already existed in China but there were none in Manchuria, although the Japanese were planning to open a medical school in Mukden connected to the SMR. This was to be open to both Chinese and Japanese students but would teach only in Japanese. Christie was convinced that medical teaching must be in Chinese and, as a Christian missionary, wanted to have a strong Christian influence in the college. Yuan Shikai, the Viceroy of Zhili and Minister of Beiyang (he was later to become President of the Chinese Republic), had visited Christie to ask him to open a college to educate Chinese youths in the principles of Western medicine and had promised financial assistance; thanks to his support Christie was able to obtain land for the proposed college adjacent to the hospital. In addition to Chinese encouragement, Christie had the support of the 'Manchuria Conference' – a body created in 1890 that coordinated the work of Irish and Scottish Presbyterian missions in Manchuria. It would include Danish representatives from 1916.

Having secured the backing of both the government and local missionaries, Christie felt able to leave the hospital in the hands of his chief Chinese assistant, Wang Yan-shin when he returned to Edinburgh on yet another fund-raising and recruiting mission, this time for funds and staff for a medical college. Although the foreign mission committee of the United Free Church (the United Presbyterian Church had joined with the Free Church of Scotland in 1900) declined financial responsibility for the proposed college, in January 1909 he received their authorisation to approach donors. (He was, however, instructed that his fund-raising must not interfere with their own efforts.)⁸ He planned to raise £4,000 and

hoped to obtain the services of at least two more doctors. As usual he was successful. One donation, of £1,000, came from the estate of Isabella Bird, whom he had treated for a badly broken arm in Mukden fifteen years earlier. He returned to China with almost £5,000 and had recruited the first two staff members specifically hired for the College, RH Mole and AF Jackson. Mole had graduated from the University of Liverpool in 1906; Jackson was a recent Cambridge medical graduate (Peterhouse College).

Christie returned to Mukden in the autumn of 1910 just as a major outbreak of pneumonic plague that had begun in the north of Manchuria swept through the area. Pneumonic plague is highly contagious and is transmitted by aerosol droplets; patients have an abrupt onset of fever and chills, accompanied by cough, chest pain, dyspnea, purulent sputum, or hemoptysis. As usual, Christie and his colleagues at the hospital responded to the government's appeal for help and he was made honorary government medical advisor. The Cambridge trained physician and Medical Director of the North Manchurian Plague Prevention Service, Wu Liande, chaired the subsequent International Plague Conference. There Christie's colleague Wang reported³² that the first cases occurred in Mukden on 2 January 1911 when a patient arriving from Harbin in the north was found ill on the streets. Mukden was a major railway junction and the transfer point for passengers arriving from the plague-stricken north on the Japanese-run SMR; some wished to transfer to the Chinese railway going to Beijing, others to the port city of Dalian or Korea. It was thus imperative that the spread of the infection be controlled at the Mukden station, and Jackson volunteered to man this post. There were three deaths among the medical staff: two students from the medical college in Beijing and, on 25 January 1911, Jackson. He was only 26 years of age and had arrived in Mukden less than three weeks earlier.

The epidemic and the death of Jackson were undoubtedly setbacks for Christie's plans, but the goodwill gained by the efforts and sacrifices of the foreigners certainly gained the proposed College great public support in both China and Britain.^{33,34} Like any good fundraiser, Christie took advantage of this sympathy. In London on 8 April 1911 *The Times*³⁵ reported that Christie had recently written to the China Emergency Appeal Committee stating that: 'We have an opportunity now in Manchuria such as we could not have dreamed of. This terrible plague is opening men's minds and proving the dire need of medical education, so that I have no doubt we shall have far more applicants than we can possibly admit. Now is the time to increase our staff ...'. This was followed in May by a letter to *The Times*³⁶ from Robert Willis, the British Consul General in Mukden, who appealed for funds to support the endowment of a Jackson Memorial Chair, the Jackson family having already contributed the compensation that they had received from the Provincial government. The government agreed to make a small

annual grant and local Chinese merchants raised funds for the new College. However, further disruptions were on the horizon: the Wuchang uprising against the Qing dynasty began in Wuhan on 10 October 1911. Writing several years later, Ellerbek³⁷ says, with amazing restraint, that '[t]roublesome times followed, which were not conducive to quiet educational work.' The revolt against the Imperial government spread rapidly and the Provisional government of the Chinese Republic was formed in Nanjing on 12 March 1912, with Sun Yat-sen as interim President.

OPENING THE MUKDEN MEDICAL COLLEGE

In late January 1912, in spite of these upheavals and despite the fact that all government schools had been closed in December, entrance examinations for the new College were held in thirteen centres throughout Manchuria. There were 143 candidates, about half from mission schools, and 75 from the city of Mukden. (There were 157 candidates in 1913, for the class of 40 that entered in 1914.) On 28 February 1912, ten days after the start of the Year of the Rat, the Viceroy of Manchuria peacefully exchanged the Imperial Dragon Standard for the Republican five-coloured flag, and on 28 March, a group of fifty students met in the first classroom of the new College. Soren Ellerbek, David Muir and Howard Mole were present to greet them – Christie, who was, of course, the Principal, being unable to attend because of illness.⁸ In the first class enrolling for the five year programme – the curriculum was based on Scottish university models – were two who would have great influence on the MMC for many years, Leo Tung-lun and Gow Wen-han. Leo had been encouraged to apply by his teacher, the Irish missionary (and Christie's fellow-mapmaker) Alexander Crawford.

The CMMA recommended that the minimum complement of foreign full-time staff in missionary medical colleges should be ten; by 1914, the MMC was approaching this target as it had eight professors, but the start of the World War in August created further disruptions as several of them volunteered for war service. However, the appointment of Ellerbek was regularised and Peder Pedersen, also of the Danish Mission (who had been practising outside Mukden since 1912), was appointed to the staff. Both men, graduates of the University of Edinburgh, played an important part in the history of the MMC. Twenty members of the first class, including Gow, who specialized in ophthalmology, and Leo, who became a respirologist, graduated on 30 June 1917; both later spent time in Edinburgh doing postgraduate work. Several other members of the class served with the Chinese Labour Corps in France during and following the War.³⁸

SOUTH MANCHURIA MEDICAL COLLEGE

Since the two institutions existed in Mukden during approximately the same period and their subsequent history is connected, it is appropriate to note that the

SMMC was founded at about the same time.³⁹ On 20 May 1911, the SMR requested permission to establish a medical college in Mukden and the Japanese government gave its approval on 7 June 1911. The SMMC (Manshu Ika Daigaku) was officially established by Imperial Ordinance 320 on June 15. Medical schools in Japan at that time were controlled and staffed by either the Tokyo or Kyoto Imperial Universities; the SMMC was in the domain of Kyoto. Peterson, Hayhoe and Lu⁴⁰ describe the establishment of universities by the SMR as being ‘... based on the policy of so-called “culturally camouflaged armament” (a strategy for advancing Japanese influence in the three Northeast provinces ... put forward by Goto Shimpei, the first President of the SMR). ... Although Chinese students were permitted to enter both institutions [the other was the Lushun Technical University] they were essentially Japanese universities that happened to be on foreign soil.’ Between 1910 and 1915 the SMR was building a large hospital in Mukden; classrooms were added to it in 1914. The faculty was initially exclusively Japanese, except for two Germans who taught that language in all four years of the curriculum. Although the SMMC was to be open to both Chinese and Japanese students, the first twenty students were all Japanese; they were enrolled for a two-year course on 10 October 1911. On 15 February 1912, the Japanese Ministry of Education accredited the SMMC and the first Chinese students were admitted, after some preliminary training, in 1913. In 1922 the SMMC was elevated to the rank of a university faculty of medicine and a two-year preparatory course became compulsory for all students. In a 1917 survey of medical education in China, Merrins⁴¹ of the CMMA, a professor at St John’s University in Shanghai, described the SMMC as ‘the best staffed school in China’. Cowdry⁴² quotes from the SMMC’s [1921] official announcement (‘printed in English for the convenience of foreigners’): ‘The aims of the college lie in training Japanese and Chinese physicians of fine character and competent ability who assume their parts to contribute to the progress of medical science, particularly to study the natures of, and the cures for, endemics peculiar to Manchuria.’ Cowdry reports that in 1921 the SMMC offered a five-year curriculum and had an enrollment of 127 Japanese and 85 Chinese students. He notes that by 1920 there had been 113 Japanese and 44 Chinese graduates.

DEVELOPING WESTERN MEDICAL EDUCATION IN CHINA

In 1908, JD Rockefeller, who was considering creating a charitable foundation, funded an Oriental Education Commission at the University of Chicago. In 1909 it recommended⁴⁵ that if the proposed Foundation decided to support education in China, these funds should be directed towards medical education. When the Rockefeller Foundation was established in 1913, its trustees almost immediately appointed a special

commission to study how to achieve this goal. This commission visited China for six months in 1914 and their report⁴⁶ led to the creation of the CMB. On 1 July 1915, the Foundation, through the CMB, took responsibility for funding the PUMC. It was the only Western medical college then recognised by the Chinese government and had been founded by American and British missionaries in 1906. The Commission’s other recommendations included one stating that English should be the medium of instruction in those medical schools with which the Foundation should become connected.

In 1915, William Welch, the first Dean of the Johns Hopkins Medical School, and four colleagues including Simon Flexner, were appointed by the CMB as a special commission to visit China again. The 1914 commission had not been able to visit Mukden, but Welch and his colleagues started their tour there and were very impressed by the facilities of the SMMC. However, Welch⁴⁷ notes that ‘... the small attendance of Chinese students and the existence of strong anti-Japanese sentiment among the Chinese, and other reasons which might be mentioned indicate that this is not likely to be the channel through which China will enter the new paths of modern medicine.’ They also visited the MMC, and Welch goes on to say,

‘Far more modest are the hospital and school buildings of the Moukden Medical College, a Union missionary institution of which Dr Christie is the head. This is a good example of the type of mission medical school developed about a strong personality, and training, with inadequate preparation and meagre equipment, Chinese students. The school resembles that under Dr [Duncan] Main in Hangchow, which we also visited. These two men are perhaps the most remarkable in force, in accomplishment and in local influence upon the Chinese of any in the medical missionary field in China. While fully recognizing the really great work which they have done and are doing, the future of medical education in China does not lie with the inferior type of medical school to which these devoted men are now giving so much of their time and energy.’

The comments on the MMC were somewhat unfair, as Welch and his colleagues visited only three years after it opened and while many foreign teachers were on war service. In 1921, at the dedication ceremonies for the rebuilt PUMC, Edward Hicks Hume, then President of the Hunan-Yale Medical College in Changsha, reports⁴⁸ that in 1920 the MMC received ‘about \$6,000 silver from the Provincial government’ while the PUMC received \$800,000 (presumably from the CMB). He goes on to state that ‘outside of the PUMC the only foreign institutions with a really adequate budget are the South Manchuria [Medical] College at Mukden and the Medical School of Hong Kong University.’

Unlike some of his colleagues, and the Welch-Flexner Commission, Christie felt strongly that Chinese students must be educated in their own language. Hume touches on the language question during his address and, in Bowers' words,⁴⁴ 'reflected the feeling of some of the missionaries when he took a middle-of-the-road position, describing the language of instruction as still an open question.' Shields²⁵ notes that of the six mission medical schools operating in 1930 only three taught exclusively in Chinese; the PUMC taught in English, the SMMC taught in Japanese. He reports that only five of the other 14 private and government schools taught exclusively in Chinese. New and Cheung⁴⁹ put the language debate into perspective and note that '[i]n just about every major document issued in the early 1900s regarding teaching of Western medicine, one would inevitably find pages of pros and cons on the language issue.' Christie, who was a strong supporter of the CMMA (and in 1905, its President), was foremost in insisting that foreigners should only temporarily control the mission medical schools. He writes⁵⁰ 'Our Colleges should be as Chinese as practicable ...'. In 1913 the CMMA passed a resolution proposed by Christie that stated among other things, '... that they [foreign physicians] have no desire to make these institutions permanently foreign, but to hand them over ultimately, to the Chinese themselves.'^{51,52} Christie saw the need for teaching in Chinese and the ultimate aim of the Chinese taking control of the medical colleges as inextricably linked. Although teaching at the MMC was in Chinese, the 1913 Annual Report⁵³ notes that teaching English was essential, not only to allow students to read about recent medical advances but 'because the government would not recognize a medical course conducted only in the Chinese language'. To assist Chinese students in keeping abreast of current literature, the CMMA's Council on Publication and Translation, chaired for many years by Edinburgh graduate PB Cousland, translated many Western textbooks into Chinese and prepared an updated English-Chinese medical lexicon. However, Ellerbek notes³⁷ that although MMC taught English to 'render the graduate capable of reading professional journals in English', few graduates actually did so and MMC found it necessary to issue a medical journal in Chinese (the *Moukden Medical College Journal*) and to organise 'Annual Reunions' for continuing education purposes. The SMMC also sponsored a journal, *Nanman Igakkai zasshi*. This was mainly in Japanese and its title later changed to *Manshu igaku zasshi – Journal of Oriental Medicine*.

Merrins⁴¹ notes that most mission medical schools in China were founded 'not by pure educationalists as part of some great educational scheme, but by physicians almost overwhelmed by work ...' and acknowledges that not all these schools 'were all they should be'. He makes the case for having one standard of medical training and urges his colleagues not to perpetuate the situation where a few of the Western schools provided adequate training and most did not. He urges that more professors be hired (and then that they have the time and skill to engage in both continuing education and research), that better facilities and modern methods of instruction be introduced, that the medical curriculum be lengthened, and that entering students have the necessary preparatory courses. He suggests that those medical schools that could not meet the highest standards should close or merge. The curriculum and the length of the courses of the foreign medical schools were clearly matters of some concern and were addressed by McAll⁵⁴ in 1923. In 1920, the Canadian anatomist Edmund Cowdry⁵⁵ discusses the history of Western medical education in China and deals in greater detail with the teaching of anatomy; he notes that the MMC then had only one part-time anatomy instructor (Mole), while the SMMC had three full-time instructors and his own school, the PUMC, had five. Cowdry notes in particular the major problem caused by a lack of bodies for dissection, due to government regulations and cultural reasons. His successor at the PUMC, Davidson Black, recounts that he complained to the director of the local prison because the cadavers invariably arrived with their heads cut off. A few weeks later several healthy prisoners were delivered with a note from the director stating 'Kill them any way you like'.⁵⁶

Note

Part 2 of this article will publish in Issue 2 of *The Journal*. For reasons of clarity, geographic, personal and institutional names are given in their most common English form as used during the period. To avoid confusion, Mukden/Moukden (now Shenyang) is standardised to 'Mukden'.

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