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ANCIENT TRADITIONS, MODERN INSIGHTS: DR. WU LIEN-TEH'S INFLUENCE ON CHINESE MEDICINE

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Abstract

The debate between Traditional Chinese Medicine and Western medicine has persisted for over a century and continues to this day, particularly in regions outside China. Dr. Wu Lien-Teh, a distinguished Malayan physician and a highly trained Western doctor, challenged conventional paradigms from a global perspective, rejecting the idea that medical practices should be judged solely based on their geographical origins. In his co-authored work with Dr. K. Chimin Wong, *The History of Chinese Medicine,* along with his biography, numerous speeches, and articles, Dr. Wu presented a progressive vision for Chinese medicine that engaged both the Chinese and Western medical communities. Employing historical and textual analysis of his writings and public records, this paper examines Dr. Wu's transcendent view of medicine, arguing that his contributions moved beyond the traditional East - West dichotomy, positioning him as one of the earliest figures to bridge the gap between ancient and modern Chinese medicine. It explores Wu's medical insights and their enduring impact in China and globally, highlighting their continued relevance and influence in modern medical practice. The analysis reveals that Wu regarded Chinese medicine as a valuable traditional resource to be scientifically reviewed, prioritising pragmatic efficacy over ideological purity. Crucially, Wu's vigorous promotion of modern Western medical principles and infrastructure inadvertently catalysed the subsequent modernisation and scientific evolution of TCM in China. Wu's legacy offers an enduring and relevant model for contemporary global health systems seeking to leverage diverse medical traditions through scientific standardisation and integration.

Keywords: Wu Lien-Teh, Chinese Medicine, East-West Medical Debate, Medical modernisation.

Introduction

Dr. Wu Lien-Teh (1879–1960), the Malayan Chinese physician renowned as the "Plague Fighter" and the "Pioneer of Modern Medicine" in China, has become a key subject of scholarly research due to his pioneering role and achievements in the twentieth century. [1] Interest in his work surged, particularly during the COVID-19 outbreak, which renewed global discussions on his legacy. Recent studies have explored his life, his lasting impact on public health, and his highly respected achievements across British Malaya, China, and the globe.

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Although widely recognised as a distinguished Western-trained physician, Dr. Wu Lien-Teh co-authored *The History of Chinese Medicine* with Dr. K. Chimin Wong (1889 – 1972) in 1932, which was the first English-language academic study systematically tracing the evolution of medicine in China.[2] Its influence was particularly significant in the Western scholarly world, reinforced by Wu and Wong's prominence in medical and scientific communities. However, after the publication of this work, Wu returned to Malaya in 1937 amid the shifting global political landscape until the outbreak of World War II. Consequently, *The History of Chinese Medicine* has remained available only in its English-published version, limiting its accessibility and comprehensive scholarly engagement in non-English academic spheres. As a result, the ideas and concepts presented in the book have yet to be explored in depth through critical analysis.

In addition to *The History of Chinese Medicine,* Wu's biography and open speeches delivered throughout his career, Wu has articulated a progressive vision of Chinese medicine that resonated with both Chinese and Western medical communities. This paper examines Dr. Wu's perspective on Chinese medicine as one that transcends the traditional East-West dichotomy. By adopting a historical approach to analyse Wu's interpretations of medical concepts within the socio-cultural context of the first half of twentieth century, this article explores and examines Wu's medical insights and its enduring impact in China and globe, which not only shaped modern medical discourse in the country but also laid the scientific theoretical groundwork for the ongoing debating of traditional Chinese and Western medicine. His ideas and approach remain highly relevant and influential in modern medical practice.

Literature Review

Despite its long-term existence, the modern history of Chinese medicine only emerged at the turn of the 20th century. The famous Chinese physician and historian, Chen Bangxian (1889 - 1976), was regarded as the first historian who wrote the history of Chinese medicine in a new "modern" way that laid the foundation in the field.[3] Chen Bangxian wrote his famous book, *Zhong Guo Yi Xue Shi* (Chinese Medical History 中国医学史) in 1919, which served as a groundbreaking work for writing history in a new modern way in China.[4] This pioneering works, which were highly appraised by both Wu Lien-Teh (who wrote the preface to the book) and Joseph Needham, emphasised the impact of the natural environment, social systems, and the significant influence of foreign medical traditions from India, Japan, and the West.[5] Chen later completed *Zhong Wai Yi Shi Nian Biao* (中外医史年表 The Chronology of Chinese and Foreign Medical History) and *Yi Xue Shi Gang Yao* (医学史纲要 Outline of Chinese Medical History).

The early 20th century was a pivotal era for medical historiography in China, defined by the intense interaction and subsequent ideological conflict between Chinese and Western medicine. This clash escalated beyond a simple medical debate, becoming a central front in the broader "New Culture" movement.[6] This period witnessed the recognition of figures such as Xie Guan and Zhang Xichun as pioneers and masters of Chinese medicine. In 1921, Xie Guan

compiled the comprehensive *Zhong Guo Yi Xue Da Ci Dian* (中国医学大辞典, A Dictionary of Chinese Medicine). Later, he wrote the influential *Zhong Guo Yi Xue Yuan Liu Lun* (中国医学源流论, A Brief Discussion of the Origins of Chinese Medicine), which specifically delved into the crucial connection between the evolution of TCM's academic thought and the corresponding changes in medical practice.[7] Zhang Xichun, who wrote the *Yi Xue Zhong Zhong Can Xi Lu* (医学衷中参西录 Assimilation of Western to Chinese in Medicine) between 1918 and 1934, was another famous physician who also advocated the idea of taking advantage of Western medicine to remedy the weaknesses of traditional Chinese medicine. [8]

Prior to the publication of *The History of Chinese Medicine* by Wu and Wong, the English-language historical scholarship on Chinese medicine was notably limited. The bibliography for their work, however, reveals a subset of titles documenting the initial Western engagement with Chinese medical, pharmacological, and botanical knowledge, an interaction that significantly preceded the widespread adoption of modern medicine in China. This early literature included practical resources like materia medica lists and the contributions of Western medical missionaries. [9] A representative figure of this era was Dr. John Dudgeon (1837–1901), a Scottish physician whose career spanned nearly four decades in China as both a medical missionary and a translator. Dudgeon made significant contributions to both Western and Chinese medical scholarship. His primary contributions include editing significant Chinese medical texts on Chinese surgery, the Chinese arts of healing, and the history of smallpox in China.[10] He also offered detailed observations on Chinese *Kung-Fu*. He notably presented an original comparison between ancient Chinese gymnastics and the ancient Greek palaestra.[11]

From a global perspective, Western scholars' understanding of Chinese medicine was limited and dismissive at the turn of the last century. Fielding Hudson Garrison (1870–1935), a prominent American medical historian and bibliographer, was highly influential in establishing medical history as a distinct academic field. His foundational work, *An Introduction to the History of Medicine: With Medical Chronology, Bibliographic Data, and Test Questions*, shaped how the history of medicine was taught and conceptualised in the West.[12] Garrison traced the field from its ancient and primitive forms through the Egyptian, Sumerian, Oriental, Greek, Byzantine, Mohammedan, Jewish, and medieval periods. However, regarding Chinese medicine, he characterised it as a system that was "absolutely stationary," lacking scientific importance, and burdened by "petrified formalism." He argued that "Chinese medicine is what our own medicine might be if we had been guided by medieval ideas up to the present time, that is, absolutely stationary. Its literature consists of a large number of works, none of which is of the slightest scientific importance."[13]

As such, after discovering that Fielding Hudson Garrison's book provided only minimal coverage of Chinese medicine and contained significant inaccuracies, Wu and K. Chimin Wong decided to address these deficiencies. Additionally, upon his return from Japan, Wu expressed his profound concern that Japanese scholar Fujikawa Yū (1865 - 1940) had already published his monumental *Nihon Igakushi* (History of Japanese Medicine) in Japan, whereas the study of Chinese medical history remained conspicuously underdeveloped.[14]

Over the following sixteen years, Wu and Wong embarked on a comprehensive project that resulted in the publication of *The History of Chinese Medicine* in 1932, with a revised edition released in 1936. A pioneering work in its field, the book became a global milestone with a nearly century-long scholarly impact. While Wu's legacy as a great plague fighter is widely celebrated, relatively few discussions address his specific views on and engagement with Chinese medicine. Particularly during the 1960s, efforts to translate *The History of Chinese Medicine* were abruptly halted and condemned for being "overly conciliatory to imperialist aggression." Wu and Wong were even considered insufficiently knowledgeable in traditional Chinese medicine to author such a historical account.[15] The evaluation of the History of Chinese Medicine after 1949 dramatically shifted from an initial harsh dismissal, marked by a criticized translation, to later acclaim as a "brilliant masterpiece" following China's reform and opening up.[16]

The debate on Chinese and Western medicine has continued over the past century. Meanwhile, the scholarship on the history of Chinese medicine has advanced significantly, mirroring broader academic and cultural transformations. As a Western-trained physician who maintained the national loyalty of an overseas Chinese, Wu brought the objective scrutiny of an outsider, free from the inertia of China's medical traditions, yet stood firmly with China's quest for modernity through scientific medicine. How was he attentive to local sensitivities while simultaneously urging that the study of medicine in China embrace both the traditional healing system and modern medicine? Why and how can we derive valuable insights from Wu's unique perspective? This study places these discussions in the historical context of Wu's narratives and the social - cultural context of the early 20th century.

1. Wu 's Narratives on Chinese Medicine

1.1 Bridge Chinese medicine and Western medicine

In the preface to the first edition of *The History of Chinese Medicine*, authors Wong and Wu assert that the discipline to integrate of ancient native medical art with modern scientific principles as "one whole". They contend that Chinese medicine, despite being founded on four millennia of empirical knowledge, only achieved "constructive progress" by adopting core scientific methodologies, specifically observation and experimentation. [17] The book is divided into two distinct sections. The first, penned by K. Chimin Wong, delves into traditional Chinese medicine. The second, authored by Wu, investigates the development of modern and contemporary medicine in China. Given that the term "Chinese medicine" is frequently associated specifically with "Traditional Chinese Medicine (TCM)", the book's title, *The History of Chinese Medicine*, could be more precisely interpreted as "The History of Medicine in China".

Both Wu and Wong were trained as Western medical doctors. Wong graduated from the Hong Kong College of Medicine for Chinese (香港华人西医学院), the predecessor of the University of Hong Kong (HKU), in January 1910. Throughout his career, he dedicated himself

to documenting and researching Chinese medical history. He played a crucial role in the maintenance and development of the Shanghai Museum of Traditional Chinese Medicine (formerly the Chinese Medical Association Medical History Museum) and published a series of articles highlighting China's contributions to medical science. [18]

Although their dissatisfaction with Garrison's treatment of Chinese medicine was a driving force behind their endeavour, their work was nonetheless profoundly influenced by his historical style. Being a chronicle narrative of medical events in China from ancient times to the present period, the book provides a comprehensive record and review of the history of Chinese medicine from its earliest beginnings as an indigenous and mysterious art, to the subsequent introduction of recent Western medicine into China. In this book, Wu and Wong brought with them an outsider's perspective, free from the tradition of China's medical practices, but as well-trained Western medicine doctors, to interpret the development of both traditional medicine and modern biomedicine in China.

In the book's second part, Wu introduced his medical concept of integrating modern medical science with traditional healing art. He recognised that the history of Chinese medicine (2697 B.C. to 1801 A.D.), although traditionally regarded as rigid, provided a crucial backdrop for the successful introduction of modern Western medicine. Wu argued that the success stemmed from the cumulative and painstaking individual efforts of countless people, and he highlighted the contributions of both Chinese physicians and foreign colleagues. Ultimately, Wu envisioned that the future effectiveness of medical science depends on strengthening this collaborative partnership, or "symbiosis. [19]

More significantly, when discussing the introduction of Western medicine and the incorporation of its best elements for public benefit, Wu emphasised the key concept of "adaptation." He argued that simply transplanting European and American medicine without considering China's "traditional background" or the "special needs of the masses" would be both unwise and unworkable. Consequently, Wu asserted that "Adaptation, rather than mere transplantation, should be the watchword of medical workers during the next fifty years." He believed China would eventually absorb and utilise the best elements of the new medicine for the benefit of all, just as it had historically absorbed foreign conquerors.

The most distinctive aspect of Wu and Wong's contribution was their specialised training, which enabled a precise yet comprehensive analysis of Chinese treatment practices, biomedical theories, and clinical effectiveness. Their work involved critical evaluations of diverse topics, such as the use of chaulmoogra oil for leprosy, smallpox treatment in the Song Dynasty, the efficacy of surgical and anaesthesia techniques, and the pharmacological value of Chinese materia medica. Regarding the blood - circulation system, many scholars have posited that ancient Chinese, especially the authors of *Neijing* (内经), had uncovered this secret. Wong and Wu regarded passages in the *Neijing* as remarkably insightful, suggesting that ancient Chinese thinkers had an early, albeit incomplete, understanding of blood circulation while acknowledging the limited evidence and lack of detailed knowledge. [20]

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In principle, Wu proposed that Chinese medicine could be transformed into modern Chinese medicine and advocated the combination of Chinese and Western medicine. He emphasised that there was no difference between Chinese and Western medicine, but rather the difference between ancient and modern medicine. Such medical philosophy and critiques of Chinese medicine were further elaborated on many other important occasions.

1.2 Speeches on Chinese Medicine in Malaya and Hong Kong

Wu's success in combating the plague in China brought him widespread recognition in British Malaya and beyond. During his thirty-year service in China, he had returned to Malaya at least thirteen times.[21] Each of his visits to Malaya consistently attracted significant attention from both the elite community and the media. On January 21, 1930, Wu returned to his hometown of Penang and delivered a speech at the invitation of the Penang Chinese Physicians and Medicine Association *(*槟榔屿中医中药联合会). In his address, he once again advocated for the collaboration of Chinese medicine with modern medical practices to enhance patient care:

> There are various drawbacks to the lack of progress in traditional Chinese medicine. Some people claim that traditional Chinese medicine is only suited for old-fashioned diseases, while Western medicine represents modern medicine. In my view, both are fundamentally the same, as they have each made significant contributions to humanity. The primary purpose of doctors in our country is to treat illnesses. They should uphold the principle of selfless dedication rather than pursue financial gain. Generally, those who become doctors should not be driven by the desire for wealth; they merely hope to have enough to eat. Money is merely a means of exchange. I hope that new medicine and old medicine can be integrated, allowing practitioners to study both with sincere dedication. Their ultimate goal should be success in saving lives. The two must never be separated. [22]

About two months later, on March 7, 1930, Wu visited Singapore and gave another speech at the welcome event organised at the Singapore Thong Chai Medical Institution, where he reinforced his idea about integrating Chinese and Western medicine. As the media reported, he said that "Whether it is Chinese or Western medicine, the ultimate goal is to save lives. One should not hoard ancient medical knowledge for personal gain, nor should the pursuit of fame and reputation take precedence. Instead, one should fully embrace the spirit of serving humanity and advancing medical research to drive progress."[23]

Wu further elaborated on his medical views during an invited speech at HKU in January 1934. At that event, he highlighted that Chinese physicians had demonstrated competence in treating simple fevers and asserted that certain traditional Chinese treatment methods were worth retaining. He specifically praised the Chinese for having elevated dietetics to "almost an exact science" and strongly encouraged further scientific investigation into these native practices.[24] Two years later, upon the invitation of Prof. W. I. Gerrard(1884-1956), Wu gave a

lecture entitled "Chinese Medical Art and Its Impact on Modern Science" at HKU in December 1936. Reported by the *Malay Tribune*, he presented his insights with a focus on the following specific points:[25]

1) Foothold of Medical Science in South China

Wu emphasised South China's stronger foundation in medical education, led by institutions such as the Canton and Sun Yat-sen University. Before the establishment of the Central Ministry of Health in 1928, medical education lacked formalisation and relied on small-scale, individual instruction. Early modern medical training faced a shortage of qualified teachers, compelling pioneers to rely on outdated traditional knowledge. He highlighted Hong Kong's crucial role in Chinese medical history, noting its early establishment of a proper medical school in 1887 and its significance as the place where Dr. Sun Yat-sen obtained his diploma.

2) Limitations of TCM

Traditionally, Chinese medicine relied heavily on observational diagnosis, herbal remedies, and dietary therapy, with minimal emphasis on physical examinations or surgery. Rooted in the five-element theory, it incorporated environmental and personal factors in treatment. Wu noted that Confucian beliefs in bodily sacredness hindered the acceptance of anatomical dissections and Western medical advancements. Before the central Ministry of Health was established in 1928, medical education remained informal, based on individual apprenticeship. While massage was widely used, only a few simple surgical procedures were performed in ancient China, despite some early scientific approaches to surgery.

3) China's Medical Contributions and Public Health Progress

Despite initial reluctance, China's advancements in smallpox treatment and herbal pharmacology demonstrated significant scientific value. The practice of smallpox inoculation in China, recognised as early as the 17th century, contributed to the development of global vaccination principles, later refined by Jenner in 1796. Dr. Wu highlighted the successful containment of the 1910–1911 Manchurian plague through modern medical interventions, marking a major milestone in Chinese public health. Since the establishment of the Ministry of Health in 1928, efforts have focused on standardising medical education, improving healthcare training, and advancing public health measures. While significant progress has been made, challenges persist in integrating traditional Chinese medicine with modern medical practices.

4) Use of Drugs in Chinese Medicine

Wu gave a high appraisal of the use of drugs in Chinese medicine, which boasted a long history with the earliest pharmacological records attributed to Emperor Shen Nung. *The Pen Ts'ao Kang Mu* (本草纲目, Great Herbal, 1596) extensively documented medicinal substances

derived from plants, animals, and minerals, drawing from 41 prior monographs and extensive additional sources, correcting errors, introducing new preparations, and systematically categorising 1,871 drugs into 62 groups within 16 classes. Ancient Chinese medicine primarily focused on disease prevention through proper diet and herbal remedies.

When Western pharmaceuticals were introduced during the Qing Dynasty, their efficacy was initially uncertain. However, their gradual integration marked a transition toward a blended medical system. Modern Chinese medicine continues to be influenced by both traditional and Western practices, securing its place in the global pharmacopoeia. Wu acknowledged the complexities of this integration, emphasising the challenges inherent in reconciling the two medical paradigms. His perspective underscored the necessity of open-minded collaboration between modern practitioners and traditional herbalists in advancing medical knowledge.

1.3 Chinese Versus Western Medical Practice

Beyond discussions of specific diseases and public health concerns, Wu extensively shared his insights on the trajectory and historical evolution of medicine in China from a global perspective in his article, "Past and Present Trends in the Medical History of China," which was published in *The Chinese Medical Journal* in April 1938. [26] Drawing upon his comprehensive observations of both the Chinese context and the broader international landscape, Wu highlighted several key principles and significant historical findings, consistently emphasising the interconnectedness of Chinese and global medical traditions.

He argued that medical histories across diverse civilisations followed parallel trajectories, exhibiting remarkable similarities not only in broad principles but also in finer details. Wu noted that advanced thinkers, such as Semmelweis and Pasteur, often had their ideas initially overlooked, a trend he observed globally. Furthermore, he emphasised that many ancient Chinese remedies remain integral to modern pharmacopoeias, including potent substances previously unknown in the West. He concluded by underscoring the historical importance of specialised medical training in ancient China.

In 1959, Wu completed his biography, *Plague Fighter: The Autobiography of a Modern Chinese Physician,* in which he included a comprehensive critical review of "Chinese Versus Western Medical Practice". [27] He further elaborated on his critiques of Chinese medicine, particularly the classic work *Neijing* (内经), explaining its two major parts, *Su-wen* (素问) and *Ling-shu* (灵枢), as well as the complex practices of Chinese pulse lore. He also highlighted how traditional Chinese medicine incorporates astrology and symbolic interpretations of health. Notable herbal treatments, including ginseng, ephedra, and chaulmoogra seeds, continue to hold significance in modern medicine. Wu highlighted again the achievement of ancient Chinese medical education, which was results-based with formal schools emerging in the Sung dynasty. Exams covered internal medicine, surgery, and acupuncture, with top graduates appointed to medical institutions.

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Wu pointed out the difficult problem of quackery or the treatment of sickness by unqualified persons, which was "ever present in both advanced and backward countries".[28] The unqualified traditional herbalists continue to practice, resulting in high mortality rates in childbirth and infant diseases, and untrained bone - setters can cause severe harm. While Chinese medical literature contains progressive ideas, secrecy and rigid adherence to tradition stifled innovation, leading to stagnation. Unlike Europe, where medicine evolved into a science, Chinese practitioners remained bound by superstition and lacked proper training. As he commented:

> The weakness of past Chinese medical practice lay in the absence of systematic teaching at appointed colleges, where the students could take special courses and in the end receive a diploma to practice. Then, as now, the medical profession was looked upon as a sort of trade, like carpentering or bricklaying, to be learned by a course of apprenticeship with no other incentive than his own aptitude and inclinations… It is now generally understood that a freer interchange of scientific and medical matters will lead to greater confidence and trust among nations, and thus hasten the attainment of peace, justice, freedom and happiness for all.[29]

Upon his return to Malaya in 1937, Wu was surprised by the unchecked rise of quacks and herbalists from various backgrounds. The British colonial system traditionally allowed native medical practices as long as they did not disrupt governance. Laws were enacted to control the sale of poisons, but illicit trade persisted. Malaria had declined due to better drainage and health measures, while beriberi deaths had fallen significantly. However, leprosy remained unchanged, and tuberculosis had increased. The use of penicillin reduced syphilis and gonorrhoea, but rising promiscuity led to more abortions, sometimes causing fatalities and legal trouble for doctors.

Wu not only engaged in serious theoretical discussions but also advocated for integrating tradition and modernity into daily life. In 1916, he delivered a lecture on "How to Live a Healthy Life" at the National Medical Association of China Conference in Shanghai, emphasising practical approaches to health and well-being. He emphasised that good health had long been recognised in Chinese medicine, which advocated for self-restraint and cleanliness to achieve longevity. He outlined 15 essential health rules, including proper ventilation, outdoor activities, deep breathing, a balanced diet with minimal meat, avoiding stimulants, maintaining cleanliness, and staying cheerful. His advice highlighted the importance of moderation, hygiene, and overall well-being in leading a long and healthy life.[30]

Presented at the 1915 Medical Missionary Association Conference in Shanghai, he even "innovated" a hygienic method of eating Chinese food to enhance its sanitation, which proposed using individual cutlery, plates, and a revolving stand to prevent cross-contamination for ensuring a cleaner and more comfortable dining experience.[31] At the end of the article of "Chinese Versus Western Medical Practices", he quoted 24 insightful medical proverbs from

Chinese medical writings, believing them to be relevant to both Western and Eastern medical practices, past and present. [32]Among them, the saying, "The high-grade doctor serves the nation; the middle-grade doctor serves individuals; the low-grade doctor treats only physical ailments" (上医医国，中医医人，下医医病), seems particularly applicable to Wu's case, where his vision extended beyond treating diseases to reforming the national healthcare system.

2. Global Impact Across Borders and Eras

2.1 Insights from a Transnational Context

As a Malayan-born, English-educated intellectual, Wu Lien-Teh's medical philosophy was not only rooted in his academic training at the University of Cambridge but also shaped by his experiences and observations of successful medical practices in British Malaya and other countries. Born in Penang, Wu grew up in a vibrant community combining traditional and Western culture. His early education was at a prestigious Penang Free School, and admitted to Emmanuel College, Cambridge in 1896. [33] He has worked in Germany's University under the supervision of the famous German bacteriologist Professor Karl Fraenkel, and then at the Institute Pasteur in Paris under Professor Ellie Metchikoff. [34] Upon returning to Penang in 1904, Wu opened a clinic on Chulia Street and founded the Anti-Opium Association in 1906. His early life and career in Penang illustrate his profound connections to the local Chinese community, as well as the Western cultural influences that shaped his education and professional pursuits.

Wu placed significant emphasis on institutional education, sanitation governance, disease prevention, and the advancement of medical services through systematic management. As early as the late 19th century, Britain and its colonies had established foundational principles for medical qualifications and public health governance. The first medical association in Malaya, the Straits Medical Association, was established in 1890 and was soon upgraded to the Malaya Branch of the British Medical Association in 1894.[35] In 1905, the Medical Registration Ordinance was published in the *Malayan Government Gazette* and officially came into effect on July 1, 1905. [36]At the turn of the 20th century, British Malaya witnessed the establishment of medical research institutions, educational organisations, and the Department of Health. Wu recognised the significance of these major advancements, along with the establishment of a formal code of medical ethics, as essential elements for the professionalisation of medicine in China. He applied these principles in his observations and critiques of Chinese medicine.

Wu received awards from the Czar of Russia and the President of France. He was also conferred honorary degrees by Johns Hopkins University, Peking University, the University of Hong Kong, and the University of Tokyo. Moreover, he was nominated for the Nobel Prize in 1935. [37] His critique and discussion of Chinese medicine from a global perspective were influenced not only by his outstanding medical expertise and profound understanding of China's cultural heritage but also by his experience with transnational healthcare reform and scientific advancements.

Wu has shared his idea on the characteristics of nations and argued that "Britain and China have much in common".[38] His critique on unqualified doctors or drawback of the healthcare system were not meant to some traditional Chinese herbalists, but also pointed to the developed or underdeveloped countries. In his biography, he discussed healthcare issues in the U.K. and Malaya. Following two world wars, Britain, now a debtor nation, faced economic constraints that hindered the sustainability of its well-intentioned National Health Service. He argued for a simpler, more cost-effective healthcare model to enhance professional responsibility. In Malaya, doctors either struggled with overwhelming workloads or remained stagnant in long-term contracts, limiting career growth and efficiency. [39]

In "Global Medicine in China: A Diasporic History," Wayne Soon explores the pivotal role of diasporic Chinese medical figures in shaping modern medicine in China. He highlights how individuals like Lim Boon Keng, his son Robert Lim, and Wu Lien-Teh navigated the complexities of both Western and traditional Chinese medical practices during the transformative early 20th century. As he noted, the diasporic strategies employed by these medical elites were crucial in bridging the gaps between different medical paradigms.[40] Leveraging his exceptional experiences and knowledge gained abroad, Wu aimed to modernise China's healthcare landscape while honouring its rich medical heritage. This interplay between Western and traditional practices reflects the broader tensions and negotiations within China's modernisation efforts, illustrating how diasporic figures contributed to a nuanced understanding of health and medicine in the context of globalisation.

2.2 Modernising Traditional Chinese Medicine

Since the founding of the Chinese Republic in 1912, the Chinese government has actively pursued healthcare modernisation. The status of modern medicine was formally established by a presidential mandate on September 30, 1915, which required candidates in pharmacy and veterinary science to meet Western medical standards. In 1922, official regulations in other progressive countries influenced the restriction of native medical practices in China.[41] In 1928, the Kuomintang ended the Warlord period and established a nominally unified China, launching a modernisation agenda that included creating the Ministry of Health in Nanjing. The following year, Western-trained physicians at the first National Public Health Conference proposed abolishing traditional medicine to advance public health.[42]

Yu Yunxiu (余云岫, 1879 - 1954), the President of theShanghai branch of the Pharmaceutical Association of China, was one of the leaders who proposed the abolition of traditional Chinese medicine in 1929.[43] Yu Yunxiu and Hu Ding - An (胡安定) submitted proposals titled "Abolition of Old Medicine to Remove the Obstacle of Medical Health". The National Board of Health combined various proposals into a unified policy aiming to phase out Chinese medicine in six steps.[44] Having studied Western medicine in Japan, Yu developed a deep scepticism towards traditional Chinese medicine, particularly because he and his contemporaries were profoundly influenced by Japan's advancements in modern Western medical science.

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The long-standing debate concerning the modernisation or Westernisation of Chinese medicine has been significantly documented by modern scholarship. [45] A major impetus for the proposal to abolish traditional Chinese medicine was the rapid progress of Western medicine, which was significantly driven by Wu. His pioneering efforts greatly accelerated the rise of modern Western medicine in China and served as a major impetus for the proposed abolition of Chinese medicine. He institutionalised modern medical practice by establishing the North Manchuria Plague Prevention Service and the China Medical Association. By 1937, his commitment to advancing medical modernisation was evident. He founded 21 hospitals and medical institutions, contributed 73 articles to the *Chinese Medical Journal*, and participated in 15 international conferences, effectively linking China's medical development to global standards.[46]

The committee of medical leaders, which included Wu as a member, criticised TCM's theory and unscientific disease classification. To aid the transition, temporary measures allowed herbalists to register, attend supplementary classes, and form societies without propaganda. However, resistance from TCM practitioners led to the establishment of a central bureau that preserved traditional medicine's influence.[47] It is indeed fascinating to observe the dual impact of modernising Western medicine in early 20th-century China. The introduction of the biomedical model not only initiated the development of a national Western-style healthcare system but also concurrently propelled the transformation and institutionalisation of Chinese medicine. This drive resulted in the establishment of the National Medicine Academy in 1931 and the crucial provision for the modern and legal recognition of traditional doctors in 1936, enabling TCM to persist within the evolving national framework.[48]

Finally, the historical events compelled traditional practitioners to actively and collectively pursue professional recognition, institutional development, and governmental support. These efforts culminated in a standardised TCM system, marking the transformation of Chinese medicine into a state-endorsed modern discipline. In this sense, the modernisation of Chinese medicine was catalysed by its direct engagement with the state in the 1920s, marking a pivotal moment in its transformation.[49] In this sense, the modernisation of Chinese medicine was fundamentally catalysed by its direct and indirect engagement with the state in the century. This was a pivotal shift that, in part, aligned with Wu's earlier counsel that the guiding principle for medical development should be "adaptation, rather than mere transplantation." This principle became the essential framework for reconciling Chinese and Western medical approaches in the following decades.

2.3 Enduring Global Influence

The publication of the *History of Chinese Medicine* quickly made a significant impact in Western academic circles after its publication, bolstered by Wu and Wong's prominence in global medical and scientific communities. Belgian-American chemist and historian George Alfred Leon Sarton (1884–1956) reviewed the book in *Isis*, the oldest English-language journal dedicated to the history of science.[50] Sarton compared the work to Franz Hübotter's *Die*

chinesische Medizin (1929), noting that Wu and Wong's study was far richer in scope, covering both traditional and modern medicine.[51] He praised their efforts to balance historical traditions with scientific advancements, emphasising the value of integrating past knowledge with modern medical progress.[52]

Mazÿck Porcher Ravenel, President of the American Public Health Association, praised *History of Chinese Medicine* as a "monumental work" in his in-depth review in the *American Journal of Public Health*. He highlighted the book's comprehensive historical analysis, its scholarly rigour, detailed illustrations, and historical depth, emphasising its significance for both historians and medical professionals. Ravenel admired the thorough research and effort behind the work, noting Wu's belief that China was embracing a new era, adopting Western medical advancements while integrating them with Chinese traditions. Finally, he said, "Altogether, the book is most useful and interesting, opening up to us the history of this great Empire, in which civilisation flourished long before most of our western countries came into organised existence." [53]

These are not the only positive reviews of *The History of Chinese Medicine*. Nearly all of them strongly emphasise the profound impact the book had on the Western world. For the first time, it bridged the gap in understanding Chinese medicine through a professional and well - structured approach, making it accessible to Western scholars. Its influence extended far beyond its initial publication, transcending borders and time, and leaving a lasting imprint on academic discourse. Notably, its impact on Western scholars fostered long - term engagement. In the recent decades, more English - language narratives on Chinese medical history, such as the works of Nathan Sivin, S. M. Hillier & J. A. Jewell, Volker Scheid, Kim Taylor, T. J. Hinrichs, and Bridie Andrews, etc., drew their inspiration from *The History of Chinese Medicine*, expanding the research scope and deepening scholarly exploration of Chinese medical traditions.[54] Collectively, these works have enriched the field of Chinese medical history, deepening our understanding of its evolution and its enduring relevance in China's cultural and medical landscape.

With renewed scholarly interest in Dr. Wu, research on his *History of Chinese Medicine* has been revived. Wong and Wu's *The History of Chinese Medicine*, along with Chen Bangxian's *History of Chinese Medicine* and Li Tao's *Outline of Medical History*, are recognised as seminal works in the study of modern Chinese medical history. [55]

Conclusion

The debate over traditional Chinese medicine and Western medicine in China has been a long and turbulent one, spanning over a century and continuing to this day. The arguments extend beyond theoretical and practical aspects to issues of health policy and economics, and even go back to the fundamental question: "Is traditional Chinese medicine a science?" [56] As a distinguished Chinese-Malayan physician, scientist, and reformer, Dr. Wu Lien-Teh's contributions extended far beyond epidemic prevention. His efforts encompassed hospital

modernisation, port quarantine systems, and anti-drug initiatives. Through a scientific and professional lens, he provided objective evaluations of traditional medical practices, subspecialties, infectious disease management, pharmacology, and clinical efficacy. He particularly emphasised China's historical achievements in smallpox treatment, surgical techniques, anaesthesia, pharmacology, and the integration of nutrition and fitness in healthcare. However, he also addressed the weakness of TCM in the absence of systematic teaching and scientific advancement.

This study examines Wu's perspectives on Chinese medicine within the broader context of modern Chinese medical and public health reforms. By analysing his narratives, observations, and critiques, this research addresses a gap in scholarly attention to his contributions and progressive views on TCM in the early 20th century. Grounded in both a global perspective and local observations, Wu did not outright reject TCM but instead advocated for its critical assessment and modernisation. With a global outlook shaped by his experiences in Malaya, modern biomedical training, transnational work, and a deep understanding of Chinese culture, Wu was uniquely positioned to analyse Chinese medicine within an international medical framework. His vigorous promotion of modern Western medical principles and infrastructure inadvertently catalysed the subsequent modernisation and scientific evolution of TCM in China.

In summary, Wu acknowledged the historical value of Chinese medicine but emphasised its stagnation and the necessity of modernisation. He advocated for a state - run medical system to enhance public health and broaden access to modern healthcare. His core principle, "No Distinction Between East and West, Only Between Ancient and Modern," regarded Chinese tradition and contemporary biomedicine as a whole. His vision revolved around the synergistic integration of scientific progress with traditional heritage, a concept highly relevant to contemporary medical discourse.

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