“Debating Disease: The History of the Manchurian International Plague Conference of April 1911”

Presenter

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The International Plague Conference of Mukden, April 1911

We Chinese, have believed in an ancient system of medical practice, which the experience of centuries has found to be serviceable for many ailments, but the lessons taught by this epidemic, which until practically three or four months ago had been unknown in China, have been great, and have compelled several of us to revise our former ideas of this valuable branch of knowledge.


The International Plague Conference that followed the Manchurian pneumonic plague outbreak was the first major scientific gathering to be held in China. On 3 April 1911, representatives from eleven nations gathered in the Manchurian capital of Mukden to discuss the recent plague epidemic, disease and the medical means by which it could be controlled in the future. Physicians from all fields of medicine and several leading scientific nations put their political and personal differences aside for a month in order to pool their knowledge. The pneumonic plague of 1911 forced not only doctors, but ordinary citizens to realize something much more important than national politics and conflict: the importance of the health of a nation.

By the end of March 1911, new plague cases had begun to decline throughout Manchuria and the region's residents finally began to hope that relief was in sight. The government of China in Beijing decided that it was vital to convene a major scientific meeting in order to review and evaluate what had occurred in Manchuria and to draft recommendations should their country face a future epidemic of this magnitude. The

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plague had not only terrified the people of Manchuria and the Chinese empire, but also the people and governments of neighbouring countries. Although the impact of the Manchurian plague had been largely limited to Chinese territory, the possibility that it might have spread into neighbouring territories had been a real fear. This possibility had frightened the international community, many of whom began to view the outbreak as a threat to their own populations and economies.² By the early spring of 1911, there was a sense in the international community that there was a need to coordinate their activities in order to discover the origins of plague and to develop appropriate medical and public health measures for the future.

Delegates to the International Plague Conference

The International Plague Conference of April 1911 attracted representatives from eleven nations, including the host nation of China. These nations were represented by at least one delegate who was prepared to discuss medical aspects related to the pneumonic form of plague as well as methods that could be adopted for future outbreaks. The countries that were represented at the conference were Austria, China, France, Germany, Great Britain, Italy, Japan, Mexico, the Netherlands, Russia, and the United States.³ Experts in the fields of bacteriology and medicine were dispatched by their respective governments to represent the best that each country had to offer to modern medical science. Among the more famous scientists who attended the conference were Richard Strong (U.S.A), Kitasato Shibasaburo (Japan), D. Zabolotny (Russia), Paul Haffkine


(Britain), Oscar Teague (U.S.A), Reginald Farrar (Britain), Gino Galeotti (Italy), Dugald Christie (representing China) and Jean Chabaneix (France). The majority of these scientists requested private laboratories in which to conduct research during their stay in Mukden and they presented papers and chaired sessions during the conference, and thereby over the month-long meeting, shared their experience and advice on plague and disease control.

Many of the scientists who were invited to the conference had also been present in the region during the epidemic. A number of the delegates to the conference, including both Drs. Strong and Christie, had spent a considerable amount of time in plague-ridden areas of Manchuria, where they worked tirelessly in a number of plague relief efforts. These doctors had a great deal of direct experience with the plague, and therefore were an asset to the conference and to their fellow delegates.

The young Chinese physician, Dr. Wu Lien-teh, was named to the position of President of the International Plague Conference. Once the plague began to subside in March 1911, the Imperial Commissioner in Beijing, Saoke (Alfred) Si, sent a telegram to Wu explaining that the imperial court had decided to host a conference and that Wu had been selected to take charge of its organization. Wu travelled to Mukden shortly after receiving this telegram and began to organize and plan the conference with the assistance

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5 Wu, *Plague Fighter*, 45. The American representatives, Drs. Richard Strong and Oscar Teague asked to be provided with a place for their mobile laboratory in a secluded area of the city in order to perform their own experiments regarding plague contagion. They measured coughing distances using guinea pigs and concluded that different measures of contagion were at work. They presented their findings to the delegates at the plague conference in Mukden.

6 Wu, *Plague Fighter*, 42.
of Commissioner Si and the provincial Viceroy, Xi Liang. By 25 March 1911, buildings had been constructed specifically to host the conference. Wu's appointment as the president of the conference ensured that this was to be a Chinese affair and an event that would prove that China was capable of holding a major international gathering of this magnitude.

Many of the scientists who participated in the conference had been responsible for significant research in the areas of plague relief and the specific attributes of the disease. Japan's Dr. Kitasato Shibasaburo, in particular, had accomplished ground-breaking research in various areas of plague and disease a decade earlier. Dr. Kitasato was currently the President of the Bacteriology Institute in Tokyo, and he had discovered the plague bacillus along with Alexandre Yersin in Hong Kong in 1894. Every scientist who specialized in the fields of pathology or bacteriology knew of the work of Kitasato, and his very presence demonstrated the importance of the Mukden gathering.

Despite the political tensions among the participating nations, particularly between Japan, China, and Russia, the atmosphere at the conference was jovial and extremely cooperative. Although China and Japan were not friendly at a national level at this time, serious efforts were made on the ground to smooth over potential conflict through the duration of the conference. Throughout the meeting Kitasato was invited by Wu Liande to serve as the chair during many of the sessions because of his high stature as the world's leading plague expert. Wu explains in his autobiography that “this act of

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7 Great Britain. Foreign Office Records. FO 228. Consulates and Legation, Mukden, China: General Correspondence. FO 228/2480 Vol. 261 (Plague, 25 March 1911), National Archives, United Kingdom, Kew, London.

8 Great Britain. Foreign Office Records. FO 228. Consulates and Legation, Peking, China: General Correspondence. FO 228/2480 Vol. 261 (Plague, 21 February 1911), National Archives, United Kingdom, Kew, London.
courtesy contributed much to the smooth working of the long conference." The Chinese government and its representatives at the conference realized the need for cooperation and consideration when dealing with a large group of different nationalities.

**The Goals of the Plague Conference**

In sending us here, our respective governments extend to China their sympathy, while earnestly hoping that we, by our deliberations, may help in the adoption of measures which may prove efficient in preventing a recrudescence of this virulent malady. Those of us who are epidemiologists and those of us who devote the main part of our life-work to the science of bacteriology meet upon a common ground of inexperience of such a widespread epidemic of pneumonic and septicemic plague.


The International Plague Conference officially began on 3 April 1911. The first day of the conference was used to introduce the delegates to the history of the recent crisis and to the city of Mukden. There was an opening ceremony during which speeches were made by several important Chinese political and medical figures who had helped to organize the conference, most notably the local Viceroy Xi Liang, the Imperial Commissioner, Saoke Alfred Si, and the President of the Conference, Wu Liande.

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9 Wu, *Plague Fighter*, 55. Although the hosts spared no expense in their efforts to provide all of the conference's guests with the very best in Chinese hospitality and accommodations, the Japanese delegation chose to stay at the South Manchurian Railway hotel called the Yamato, for 'national reasons'. The British and Americans also opted not to use the accommodations provided because they either had connections in Mukden or wanted a secluded area to work. And although the British and Americans did not sleep in the areas provided by the conference, they did participate in the complimentary lunches and dinners. More information on the guests who attended the conference can be found in Wu Lien-teh, *Plague Fighter*, page 45.
The conference routine schedule was broken down into daily sessions that dealt with various medical aspects of the plague as well as methods of combating future outbreaks.\textsuperscript{10} Twenty-two sessions were held in total during the course of the conference, in addition to excursions to various local hospitals and areas of the host city that had been affected by the recent outbreak. Five sessions were devoted to the disease's bacteriology and pathology, another five to epidemiology, two sessions to analysing data, four sessions to developing measures of epidemic control, two sessions on the effects on trade, and lastly four sessions were devoted to debating and passing a slate of resolutions.\textsuperscript{11}

While most of the scientific papers were presented mainly by Russian, Japanese, Chinese, British or American experts, all of the delegates participated and discussed the final conclusions that were adopted by the conference.\textsuperscript{12}

During the early stages of the conference, each day was devoted to describing the epidemiology, bacteriology or pathology of the plague. The scientists were divided into study groups that corresponded to their strengths as researchers. The discussions regarding the tarbagan marmots and their lifecycles on the Siberian and Mongolian steppes were headed by Chinese and Russian delegates, for example, because of their great expertise on this particular topic.\textsuperscript{13} Others, such as Drs. Strong and Teague from the United States, preferred to remain within their own areas of medical interest. Dr. Strong, who had been working in Manchuria since early February, continued experimenting with sputum examinations and attempted to calibrate the effective


\textsuperscript{11} Wu, \textit{Plague Fighter}, 55.

\textsuperscript{12} Wu, \textit{Plague Fighter}, 55.

\textsuperscript{13} Wu, \textit{A Treaty of Pneumonic Plague}, 176.
distances of contagion of pneumonic plague. Experiments regarding various inoculation methods were undertaken in the laboratories that were being run by the foreign scientists while they attended the conference. Tests on animals such as donkeys, guinea pigs and marmots were performed in an attempt to search for the origins of the infection and improve prognosis.

In his welcoming address, Alfred Si asked the delegates of the conference to consider twelve main points regarding plague contagion. The majority of these points dealt with the origins and spread of the epidemic and what methods could be devised to provide relief to its victims. Other issues that Si wished to see addressed were: why did the plague break out in Manchuria in particular, and what precautions should be taken to prevent it from reappearing and possibly spreading to other parts of the world?

Much of the work at the conference focussed on the origins of plague, how the outbreak was handled and what measures needed to be adopted to prevent future epidemics. Matters regarding the disposal and cremation of victims and the efficacy of competing methods of disinfection were all discussed in an attempt to resolve the problems that had emerged during the 1910-1911 outbreak. Dozens of presentations of scientific and medical evidence were made over the month-long conference, leading to lengthy discussions and debates among the delegates. These discussions led the delegates to share their nations’ own preventative measures. Other fields of medicine that had something to add to the plague investigations, such as anatomy, physiology, and

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16 Wu, *Plague Fighter*, 50-1.

particularly pathology, were discussed during the conference's scientific sessions. World-leading doctors from each speciality chaired the sessions in their field during which ideas would be presented and conclusions would be made.

For example, session ten dealt with the incubation period of pneumonic plague. Its papers and participants discussed the various symptoms, the diagnosis and prognosis of the disease, and possible treatment - including using serums, vaccines, chemotherapy or various pharmaceuticals. This particular session addressed the workings of preventative measures of the disease and the various ideas that were developed, and largely abandoned, to combat plague during the recent outbreak. During session twelve the delegates discussed the epidemiology of the pneumonic from of plague, and analysed new and highly detailed data that had been gathered over the previous six months. This rich set of morbidity and mortality data allowed the physicians and scientists to explore if factors such as age, race, gender, location, or even occupation had any impact on the disease's mortality rates. The conclusion was that they did not. Everyone, regardless of nationality, ethnicity, age or gender died if they contracted the disease. What this data did provide was an accurate picture of how the plague spread in the region (along the railway), and the fact that those who lived in crowded and unsanitary conditions were the most susceptible.

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21 Strong, ed., *Report of the International Plague Conference*, 234. At the time race, or at least ethnicity, was believed to have played a role in the plague epidemic, as the region's Chinese population was usually blamed for the outbreak as they were 'natural' carriers of disease and their culture did not value hygiene and modern medicine. Gender was also a subject which the Chinese did not generally discuss. There is virtually no mention of women during this plague, therefore, the session which did assess the mortality rates based on gender signified a change in the attitude regarding the health of women.
Resolutions and Closing Remarks

By the end of April, the delegates to the International Plague Conference had finalized a number of resolutions regarding the recent outbreak of plague as well as a detailed protocol for dealing with future epidemics of this severity. A five-hundred page report was published entitled, Report of the International Plague Conference, which was signed by all the nations' representatives on 28 April. This report concluded with forty-five provisional conclusions that included three major recommendations:

The need for isolation of pandemic plague patients being urgent, permanent isolation hospitals should be available. Such isolation hospitals should admit of individual isolation, be of rat-proof construction, and be capable of easy disinfection.

A permanent sanitary nucleus should be formed capable of rapid expansion in time of plague, and a list should be drawn up of medical officers who could be sent immediately to the affected area on the outbreak of plague.

With the view of giving effect to these recommendations, every effort should be made to organize a central public health department, more especially with regard to the management and notification of future outbreaks of infectious diseases.²²

The final recommendation came to fruition a year later in October 1912 when the central public health department was created in the city of Harbin. This new public health body was the North Manchurian Plague Prevention Service and its founding director was the famous Chinese "plague fighter", Wu Liande. The launching of the Plague Prevention Service had been delayed for over a year because of the political turmoil in China that followed the 1911 revolution and overthrow of the Qing Dynasty.²³

The new republican government and its officials, however, were enthusiastic in their desire to implement the recommendations that had been passed at the Mukden

²³ Wu, A Short History., 59.
conference, and therefore had decided to fund the establishment of the new service shortly after they assumed the reins of power in Beijing. Wu argued in his *National Quarantine Service Reports* that the establishment of the Manchurian Plague Prevention Service “was a serious attempt made by the [new] Chinese Government to give effect to the recommendations of the Mukden Conference” by making plague prevention and relief one of China’s top priorities.\(^{24}\)

The need for modern medical education in China had been another key issue that delegates had debated during the plague conference. Following the conference and the fall of the imperial government in 1911, drastic medical reforms began to occur throughout China.\(^{25}\) New colleges and institutions soon emerged offering western-styled medical curriculum and research facilities that were in line with the recommendations of the international conference. Chinese scientists and physicians now believed that knowledge regarding basic sanitation and preventative health measures had to be made available to the general public. Education was now viewed as something that should serve the general population and doctors were to give public lectures and distribute simple, easy-to-read pamphlets and bulletins on plague prevention methods such as quarantine and isolation.\(^{26}\) These methods were used throughout the 1910-1911 outbreak and were considered vital in communicating the severity of the plague and the recommended protocol for individuals and families seeking relief. By educating the

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\(^{24}\) Wu, *A Short History*, 59.


general population the new Chinese leaders hoped that the future threat of plague would be diminished.

The most influential and long-lasting recommendation made by the international conference was for the establishment of the North Manchurian Plague Prevention Service. This service, which is discussed in detail in the following chapter, was representative of the changes made by the new republican government as its bureaucrats and officials were influenced by western notions of disease, health and medicine. The Plague Prevention Service, which functioned until the early 1930s, established seven new hospitals in Manchuria that housed more than twelve thousand patient beds during the late 1910s and early 1920s. The activities of this body led to the introduction of public-health regulations, mass inoculations against infectious diseases, the dissemination of basic medical knowledge amongst the population, and generally a dramatic improvement in the health of the Manchurian population in the early twentieth century.

**Plague as an International Concern**

It is the last day of the four weeks of sessions of the International Plague Conference, and I cannot adequately thank you for the extreme care you have taken in your deliberations and the dignity you have conferred upon the Conference by your daily attendance. The world, and certainly this Empire, will largely benefit as the result of your valuable services.


Although there was a great deal of tension between many of the nations that were represented at the Mukden conference, equally great efforts were made by their delegates

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27 Robert Perrins, “For God, Emperor and Science: Competing Visions of the Hospital in Manchuria, 1885-1931,” in *From Western Medicine to Global Medicine: The Hospital Beyond the West*, eds. Mark Harrison, Margaret Jones and Helen Sweet, 3 (Oxford: Oxford University Press, forthcoming).
to avoid conflict during the month-long meeting. As both Drs. Gray from Britain and Strong from the United States contended in their public addresses, the current medical crisis dictated that politics be left alone and that the doctors and scientists should cooperate for a greater good that transcended national interests.\textsuperscript{28} Gray observed in his reports to the British Foreign Office that delegates such as Dr. Zabolotny from Russia and the famous bacteriologist Kitasato from Japan may have been professional rivals, but were very friendly towards each other throughout the conference.\textsuperscript{29} The representatives of the dozen nations were more concerned about whether plague would spread beyond China's borders than they were about playing games that were based on petty, personal or even grand national rivalries. The plague conference of April 1911 was one of the first major international gatherings that visibly promoted a global perspective on human healthcare.

During his opening address at the international conference on 4 April 1911, the Manchurian Viceroy, Xi Liang, noted that his nation had been poorly prepared to meet such a crisis as its medical system and most of its practitioners lacked 'modern' knowledge. He argued that the pneumonic plague outbreak demonstrated China's inability to deal with highly contagious disease and that his nation needed to learn from


\textsuperscript{29} Great Britain, Foreign Office Records. FO 228. Consulates and Legation, Peking, China: General Correspondence. FO 228/2480 Vol. 261 (Plague, 4 May 1911), National Archives, United Kingdom, Kew, London. Gray gave a number of observations in this particular file including his claim that the Russian and Japanese delegates agreed that cooperation with China was essential regarding the railway and trade. This is an interesting statement considering the political situation between Russia, Japan and China in this particular point in history, and the fact that the three nations had not cooperated to any great degree during the outbreak.
current western science.\textsuperscript{30} By the early twentieth century most western nations, and particularly their populations, had come to believe that the health of a nation's citizenry was in the end the responsibility of that state's national government.\textsuperscript{31} The North Manchurian Plague Prevention Service, created shortly after the plague conference, was an attempt by the young Chinese republican government to follow this example and to develop a healthcare service based on the western model. The Plague Prevention Service was also created to increase Chinese authority over a remote region and to protect Manchuria from any further threats from either Russia or Japan.\textsuperscript{32} By creating a service that was headed and largely staffed by Chinese physicians and scientists, the government in Beijing was hoping to protect both the health of its citizens and its political control over a contested region of the empire.

Dr. Wu Liande was the central figure in China's early efforts to develop a modern, western healthcare system. Wu had been the first Chinese medical student to attend Cambridge University, and after graduating in 1902 and returning to China, he carefully cultivated many influential contacts in both China's medical and governmental circles.\textsuperscript{33} These contacts would prove to play an important role in his career as they helped him to secure official positions during this early career, and later assisted him in securing financial, material, and personal resources as he began to construct the North

\textsuperscript{30} Great Britain, Foreign Office Records. FO 228. Consulates and Legation, Mukden, China: General Correspondence, FO 228/2480 Vol. 261 (Plague, 4 April 1911), National Archives, United Kingdom, Kew, London.

\textsuperscript{31} Carol Benedict, "Policing the Sick: Plague and the Origins of State Medicine in Late Imperial China," \textit{Late Imperial China} 14.2 (December 1993), 73.

\textsuperscript{32} Flohr, "The Plague Fighter," 363.

\textsuperscript{33} Wu, \textit{Plague in the Orient with Special Reference}, 62.
Manchurian Plague Prevention Service. Dr. Wu emerged as a symbol of the ‘new modern China’ and a famous public figure: "...[B]ecause of his scientific reputation and diplomatic skills, Wu was ideally suited to represent China on the international diplomatic stage. He became the cornerstone in Republican China’s attempts to gain more worldwide recognition after the fall of the Qing dynasty in 1911." The government of China began to rely heavily on Wu’s western education and professional contacts as it embarked on its programme to modernize the national medical system. Due to his research and medical care work during the 1910-1911 plague outbreak and his subsequent efforts heading the prevention service, Wu became known internationally as a leading expert in the fields of bacteriology, pathology and public health.

The International Plague Conference in 1911 played an important role in encouraging China’s political leaders to sponsor the development of a modern public health system. The conference was an immediate gathering of eleven nations who, concerned with the Manchurian plague ending only weeks prior, felt that modern methods of plague relief needed to be addressed and researched. The conference’s final report and most importantly its list of recommendations emphasized importance of a modern scientific healthcare system for a nation’s political, economic, and social stability. The conference, because it was international in its composition, also had an impact outside of China. It reminded the world that plague was not a disease of the Middle Ages. Plague remained a serious threat to human health, but now with new scientific knowledge and medical techniques, the world was better prepared to face future

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34 Flohr, "The Plague Fighter," 364.

outbreaks. Services such as China's National Quarantine Service — another body that was established based on recommendations made at the plague conference — promoted quarantine and public health reforms all along the Chinese coastline, again under the direction of the famous Dr. Wu Liande.\textsuperscript{36} However, it was Wu's North Manchuria Plague Prevention Service that became the most important legacy of not only the 1910-1911 plague outbreak, but also of the international scientific conference that immediately followed.