Disease and Medicine in East & West: Points of Difference, Points of Contact

2-Day Conference

6 & 7 July 2017

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Front cover:

Balance of inflammation in blood vessels

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Disease and Medicine in East and West: Points of Difference, Points of Contact

This event is Co-organised by:
Wellcome Unit for the History of Medicine, University of Oxford
The Korean Society for the History of Medicine
Kyung Hee Medical History Research Centre

Medicine in most Asian countries has evolved in very different ways to that in the West, for biomedicine continues to compete with other medical cultures, most of which have distinctive epistemologies and institutions. The diverse ecological and social conditions existing in Asia have also meant that medicine – in all its forms – has often had different priorities to that in the West. And yet, among this diversity we may observe certain common themes. Biomedicine outside the West also took different forms and sometimes learned from as well as competed with indigenous knowledge and practice.

This conference examines some of these points of converge and diverge, and considers how Asian countries have managed their transition to biomedical modernity. Papers range from the medieval to the modern period and from South Asia to China, Korea and Japan. Subjects covered in the papers include pharmacy, malaria, naval medicine, contagious disease, medieval medicine and recent trends in disease and medicine.
Thursday, 6 July 2017

09:00-09:20  Registration

09:20-09:30  Opening Remarks: Professor Mark Harrison (University of Oxford)

09:30-10:30  Session 1: Pharmaceuticals in Modern Korea
Sung-Vin Yim (Kyung Hee University)
Introduction of chemical drugs in liberated Korea
Yun-Jae Park (Kyung Hee University)
Reconstruction of western medicine-centred pharmaceutical industry in post-liberation Korea

10:30-11:00  Coffee

11:00-13:00  Session 2: Malaria in Modern Asia
Jeong-Ran Kim (University of Oxford)
Bioprospecting in WWII: Japan’s search for anti-malarials in SE Asia
Atsuko Naono (University of Oxford)
Malaria control in the borderlands of Thailand and Burma, 1880-1962
Cressida Jervis Read (University of Oxford)
Fraying edges: the shifting grounds of malaria and international health relations at the new edges of mid-twentieth-century India
Masatoshi Nakamura (JICA)
Malaria and its control in Myanmar

13:00-14:00  Lunch

14:00-15:30  Session 3: Naval Medicine
Hiroshi Nunokawa (Hiroshima University)
Logistics and hygiene: focusing on Sino-Japanese War and the Russo-Japanese War
Na-lae Ryu (Hiroshima University)
Japanese social trend in naval port city Jinhae: Jinhae Sanitary Association in 1910s
Young-Soo Kim (Yonsei University)
Hospital Naval Fund and the Korean Anglican church’s medical work: focusing on St Luke Hospital in Chemulpo

15:30-16:00  Tea

16:00-17:00  Session 4: Contagion in East Asia
Jae-Hyung Kim (Seoul University)
The history of forced sterilization in Korean leprosy institutions
Jeong-Eun Jo (Kyung Hee University)
British medical missionaries and prevention of contagious diseases in early modern China

17:00-17:10  Short break

17:10-18:00  Keynote Lecture: Mark Harrison (University of Oxford)
Ecology, tradition and development: rediscovering a forgotten paradigm in malaria control

19:00  Dinner
Friday, 7 July 2017

09:00-09:30  
*Registration*

09:30-10:30  
**Session 5: Medieval Medicine**  
**Jong-Kuk Nam** (Ewah Womans University)  
The Latin translation of Arabic medical texts and its effects on the sexual morality in the 12th and 13th centuries  
**Kyung-Lock Lee** (HMMP)  
The social history of the stroke during the Goryeo (高麗) and the early days of the Joseon (朝鮮)

10:30-11:00  
*Coffee*

11:00-12:00  
**Session 6: Disease in Contemporary Korea**  
**Hong-Gwan Seo** (NCC)  
How thyroid cancer skyrocketed in Korea – true story of artificial increase in cancer  
**So-Youn Park** (Kyung Hee University)  
Trends in infectious diseases from 2000-2015: opportunities and challenges in South Korea

12:00-12:30  
**Closing Remarks: Professor Hong-Gwan Seo** (NCC)

12:30-13:30  
*Lunch*

13:30-15:00  
**Meeting to discuss next conference**
Mark Harrison (WUHMO, University of Oxford)

Keynote Lecture
Ecology, tradition and development: rediscovering a forgotten paradigm in malaria control

In the decades before the advent of DDT, the control of malaria was vigorously debated in many settings, including the European colonies, in which the disease was often the largest cause of mortality and sickness. The identification of the anopheline vector suggested a wide range of possibilities for controlling malaria through measures against larvae and adult mosquitoes but early enthusiasm declined after an unsuccessful experiment with vector control in the military cantonment at Mian Mir, in British India. If such methods could not work in a confined, well-ordered environment like a military base, there appeared to be little chance of success in other contexts. Those who had argued for a greater role for quinine in the prophylaxis of malaria began to get the upper hand. Nevertheless, some colonial medical officers continued to believe that vector control was more than an impossible dream. William Gorgas’s achievements in eradicating yellow fever and malaria from the Panama Canal Zone were widely acknowledged. Although few could hope to receive the funds necessary to conduct such campaigns in the European colonies, some medical officers believed that substantial and sustainable reductions in malaria could be achieved with less.

As more was known about the behaviour of different mosquito species, vector control seemed like a more practicable proposition, as scarce resources could be concentrated on targeting the types of mosquito responsible for the bulk of malaria transmission in any given area. This insight lay behind the work of Malcolm Watson and Nico Swellengrebel in the Malay Federated States and the Dutch East Indies. Their achievements were widely recognized, even though they are largely ignored or forgotten today. But species sanitation and related forms of ecological management were used extensively in the European colonies, particularly in British India. Some of these experiments were not successful but others were, and their role in controlling malaria may be observed from remote agricultural areas to teeming cities.

At a time when some malariologists are becoming disenchanted with an overly commodified approach to malaria control, rediscovering these methods – and the reasons for their success or failure – may help us to formulate new, sustainable strategies for managing malaria; ones that are particularly well suited to Asian contexts, in which methods devised for malaria control in Africa are of limited use. However, these early experiments with ecological control are also of importance historically, for they offer important insights into how environmental strands of thinking became entwined in some colonial contexts with ‘conservative’ perspectives on modernization. The latter drew their inspiration from the past, particularly the wisdom of ancient civilizations. Concentrating on India, but with reference to other colonial contexts, this lecture will show how this new strand of thinking linked malaria control to critical perspectives on agriculture, diet and town planning.
Sung-Vin Yim (KH-MHRC, Kyung Hee University)

**Session 1: Pharmaceuticals in Modern Korea**

**Introduction of chemical drugs in liberated Korea**

From late period of Chosun to the Japanese colonial period, modernized pharmaceutical era in Korea began. In this period, pharmaceutical industry and market were mostly occupied by Japanese company because of colonial exploitation policy by Japanese Government. In this period, Korean pharmaceutical company began to be established among dominant Japanese drug vendor, seller (賣藥) or wholesaler. Most popular drugs sold by Japanese drug vendor were compound medicine which were composed of oriental medicine and western medicine (in modern meaning it can be called OTC; over the count drugs which do not require doctor’s prescription). Western medicine was used mainly in Hospital founded by Japanese Government and Western Capital, especially USA (especially American Christian Missionary Hospital was mostly found hospital in Korea). After liberation, Korea was under the control of US Army. Under the American Military period, various new chemical drugs from US Army were liberated to hospital and market. In addition, Pharmaceutical Industry initiated growth. However, base of pharmaceutical company was totally collapsed by Korean War. In this period, Busan was main province of pharmaceutical companies. After the end of Korean War, Korean Pharmaceutical Industry had two turning points. One is enactment of Pharmaceutical Affairs ACT (1953.12.18) the other is aid from ICA (International Cooperation Administration). Development of Korean Pharmaceutical Industry depends on social needs in not-modernized society which suffered from various infectious disease and needs for hygiene and nutrition that supported by Government and Pharmaceutical company’s aspiration for development and success. In this presentation, I will summarize Development of Korean Pharmaceutical Industry in liberated Korea according to each period by “History of Korea Pharmaceutical Manufacturer’s Association’s 50 Years” (Ref. 4) as dawning period (1884-1945), beginning Period (1945-1949), hard days (1950-1955), period of reconstruction (1956-1960), take-off stage (1961-1965).
Session 1: Pharmaceuticals in Modern Korea
Reconstruction of western medicine-centred pharmaceutical industry in post-liberation Korea

Before the late 19th century, Korean people were hardly familiar with western medicine. The country’s pharmaceutical industry had originated from patent medicine that was modified from traditional medicine. However, liberation from the Japanese colonization changed consumers' preferences. Amid post-liberation confusion, there was a shortage of general medicine. And, a majority of demand for medicine had to be met by the US military aid. A large part of the US aid was medicine, particularly, antibiotics such as penicillin and streptomycin.

Then production facilities were destroyed during the Korean War, but the demand for western medicine rose sharply, mostly for army supplies of injections and official drug. Meanwhile, the ICA (International Cooperation Administration) fund was launched in 1955, and the fund was tapped to develop the pharmaceutical industry, especially for production facility of antibiotics, which had been long desired in the industry. As a result, traditional medicine began to recede. As both medical personnel and consumers came to prefer western medicine, domestic pharmaceutical companies sought technical partnership with foreign companies. It is because they lacked facilities or technologies to produce comparable quality of medicine as their foreign peers in a short time. Accordingly, the focus of pharmaceutical production shifted from traditional to western medicine.
Jeong-Ran Kim (WUHMO, University of Oxford)

Session 2: Malaria in Modern Asia
Bioprospecting in WWII: Japan’s search for anti-malarials in SE Asia

"If you believe it works, it works."

During the Second World War, Japanese soldiers were devastated by diverse diseases and the most significant of these was malaria. It is estimated that among 2,400,000 war deaths, 1,400,000 were due to hunger and malaria. For the Japanese military, who were often isolated in marshy jungle, malaria mosquitoes were more dangerous enemies than the allied forces. Towards the end of the war, the situation became worse because shortages of anti-malarials and other military goods became severe and depletion of the drugs amplified soldiers’ anxiety. Military doctors and chemists therefore searched for herbs to make alternative medicines in the jungle. The military and some medical experts argued that if they acquired effective alternative medicines or not they would make a big difference in terms of spiritual comport.

However, the wartime search for substitute anti-malarials was not simply a desperate expedient, born in the closing stages of the Second World War. Japan’s effort to seek alternative agents for the treatment of malaria dates back to the late 1930s. Since Japan went to war against China in 1937, many soldiers began to suffer from malaria in the middle and south of China. In addition, importation of anti-malarials became much more difficult under the war regime. This situation made the search for alternative anti-malarials urgent and some Japanese medical experts turned their eyes to traditional and herbal medicine, which had been marginalised in process of Japan’s modernisation during the previous century. Many also came to see traditional medicine as a symbol of unity with Japan’s conquered territories in Asia. They used the notion of a ‘common’ tradition to bolster the expanding empire. These practical as well as rhetorical motives pushed Japanese medical experts and the military to seek herbs and plants in order to produce alternative medicines for treatment of malaria. As the war situation became more severe, the imperative to find a substitute for anti-malarials became more urgent. Furthermore, the taking of alternative medicines became a matter of morale despite their dubious therapeutic status.
Atsuko Naono (WUHMO, University of Oxford)

Session 2: Malaria in Modern Asia
Malaria control in the borderlands of Thailand and Burma, 1880-1962

This paper will explore how evolving state structures in Burma and Thailand since the 19th century have determined the course of malaria control efforts of these countries. Malaria has been identified as a major cause of high mortality and morbidity in Southeast Asia and governments there have made significant effort to eradicate it since the colonial period. Despite being neighbours who share borderlands that are especially vulnerable to anopheles infestation, malaria has been more of a problem in Burma than in Thailand and this is has been partly due to the respective state’s ability or inability to reach periphery. Thailand has become much more effective in implementing malaria control measures in its highlands than has Burma since the mid 20th century. This difference may be attributable to their particular paths of long-term state development. While Thailand saw an uninterrupted pattern of centralization by the state from the mid-nineteenth century, Burma saw the continuity of formal divisions between the lowland and highland areas under colonial rule that reinforced divisions inherited from the Burmese kingdom and the legacy of autonomous, tributary states in the highlands. As a result of the civil war in Burma, this division only widened after independence. Although ceasefire arrangements and the removal of the military junta have quickened the tightening of state control over the periphery, this development is extremely recent. The long delay in “national” health reach by the state in Burma is in clear contrast to the further and deeper reach of the Thai state throughout the country over the course of the same period. Thailand has been more successful in bridging the lowland-highland divide and has been more effective in dealing with diseases in its border areas.
Cressida Jervis Read (WUHMO, University of Oxford)

Session 2: Malaria in Modern Asia
Fraying edges: the shifting grounds of malaria and international health relations at the new edges of mid-twentieth-century India

From 1960 until 1967, Dr Alan Gilroy of the Ross Institute-India Branch regularly corresponded across 5000 miles with Professor George Macdonald at the Ross Institute, the parent institute and governing body, at the London School of Hygiene and Tropical Medicine. Gilroy wrote from his location at the India Branch on the outskirts of Jorhat in Assam, now one of the north-eastern border states of India; Macdonald, mostly via the medium of his secretary's typewriter, wrote from London. They wrote to each other in their capacities as the directors of their institutes; professionals consulting each other's expert knowledge and experience of the changing malaria situation in the region. But writing the 1960s, they also wrote as malariologists trained in the 1920s. Both men were working towards the ends of careers that had seen huge shifts in the principles of malaria control regimes and the place of malaria control in international and Indian health concerns.

In their exchanges between Assam and London, this paper traces their perceptions of the emergent regimes of malaria control and then eradication. These appeared in the form of national plans emanating from newly independent New Delhi, as well as through relationships of collegiality and consultancy with the WHO in Geneva. Meanwhile the India Branch, funded by subscriptions from tea gardens, plantations and other industries, had to contend with declining demand for its industrial malaria and health advice services. Writing in a period animated by new technologies of malaria control, new centres of authority, and amidst aspirations to malaria eradication, this paper considers the consequences for the governing of malaria over these shifting grounds, in sites increasingly marginal to the concerns of mainstream malaria control.
Masatoshi Nakamura (Japan International Cooperation Agency)

Session 2: Malaria in Modern Asia
Malaria and its control in Myanmar

In the past decade, Myanmar has made significant progress in reducing malaria morbidity and mortality. The number of malaria deaths has dropped steadily year by year from 1,707 in 2005 to just 37 in 2015 (about a 98% reduction over 10 years) reflecting major improvements in access to early diagnosis and appropriate treatment. The Myanmar National Malaria Control Program almost achieved its goal of malaria control in the central part of the country. However, high endemic areas still remain along the international border where security is unstable and hard to reach. On the other hand, at the 9th East Asia Summit in November 2014, all Asia Pacific leaders committed to a region free of malaria by 2030. The malaria situation in Myanmar is rather complicated and tricky, because of its ecologically unique characteristics reflected in the efficient malaria vector and the human behavior among forest dwellers. The reality of the situation is hard to interpret or analyze relying only on conventional epidemiological information without ecological considerations. In order to eliminate malaria, the reality of the nature of malaria needs to be understood. In this presentation, the interaction between the Anopheles dirus and An. minimus, the well-known vectors widely distributed in Asian countries, and people’s behavior living with malaria such as the treatment sought and the diversity of forest related works will be described. Furthermore, the effectiveness of ongoing community health systems directed against malaria in hard to reach areas conducted by community health volunteers and their communities supported by the National Malaria Control Program will also be discussed.
In the first half of the 20th century, Japan was an authoritarian totalitarian state. It was a big threat in the Asia-Pacific region, which resulted in harm caused by invasion. In order to repeat foreign military actions that did not match national strength, Japan needed to be a military state and needed a logistics city. Hiroshima is taken as an analysis target as a typical logistics city in this presentation. The problem of national state and capitalism is blatantly shown in the logistic city.

As the war leadership expressed after the nation’s defeat of the Asian Pacific War, Japan’s supreme national interest was protection of the kokutai, a Japanese term that is extremely difficult to translate into English. While it certainly means national polity, this definition does not entirely explain the meaning of kokutai. But kokutai shows Japan as an authoritarian totalitarian state and tells us the problem of nation state and capitalism. And it is still alive now.

What is kokutai? I would like answer this question through an analysis of the logistics city and the Japanese army’s hygiene system during the Russo-Japanese War. One of the observers of Russo-Japanese war said that the hygienic system made each soldier’s body the property of the Emperor, which suggests the concept of Kokutai.

A foreign observer of Russo-Japanese war grasped the characteristics of the hygienic system of the Japanese army. The Russo-Japanese War was the perfect opportunity for medical reformers to learn. Many army surgeons, including those of the General Staff of the British War Office and Louis Livingston Seaman of US Army, observed the war. They appreciated the Japanese military’s hygienic system, which they viewed as an expression of national efficiency.
Session 3: Naval Medicine

Japanese social trend in naval port city Jinhae: Jinhae Sanitary Association in 1910s

This paper is basic level study to investigate the interrelationship among various subjects – IJN, the Government General, and Japanese Society – through sanitation in colonial naval port city Jinhae in 1910s.

The early 1910s, Jinhae was constructed by IJN(Imperial Japanese Navy) as colonial naval port city in Korea. At the first time, IJN tried to administer and develop the city through Land Rental Business. Since late 1912, however, the business had greatly been depressed because there were several reasons such as the change of Japanese military strategy after Russo-Japanese war relatively lowering the tactical value on Jinhae Bay, and translocation of the major general marine in Jinhae.

After then, the people of Jinhae realised that the arrival of warships was related to their economic development. Also, it was awaken that sanitation was one of the most important factors for warship’s arrival in the port. Accordingly, in Jinhae, the power infrastructure of the city development changed from Land Rental Business into port entry and sanitation. In 1914, Jinhae School Union - which had performed key roles in different fields like Land Rental Business, Education and Sanitation etc. - became only to have rights to education. After then Jinhae Sanitary Society, accordingly was renamed and emerged as Jinhae Sanitary Association in 1916.

JSA was an organisation which mainly has attention of administering sanitation. It was composed of many influential people who had been belonging to Jinhae School Union. Studies on Jinhae are mainly about the IJN’s naval port city plan and its formation. Resulting in emphasising the IJN’s features thus relatively having Japanese society settled in Jinhae too passive, the studies have lost their further investigation. Jinhae city was a planned town taken up 90% of its population by Japanese. Also, Jinhae had a jurisdiction problem between IJN and General Government due to colonizing the Korean peninsula.

Recently, Sanitation Union has been studied in part of autonomous regional history in Japan and the naval port city is rarely studied and Colonial naval port city. The paper seeks to examine the process which JSA performed with IJN and the Government General to improve sanitation to accomplish their purpose of city development through increasing the number of arrivals of warship.
Young-Soo Kim (Yonsei University)

Session 3: Naval Medicine
Hospital Naval Fund and the Korean Anglican church’s medical work: focusing on St Luke Hospital in Chemulpo

The Anglican Church started missionary work in Korea from around 1890 and the one of their main works was medical practices. It was useful means to evangelize Christianity in Korea and its own medical fund promoted medical works in Korea. Charles John Corfe (1843-1921) who used to be a Royal Naval Chaplain and became the first bishop of Anglican Church of Korea raised the fund, Hospital Naval Fund, supported by his old friends in the Navy and Royal Marines. The fund was mainly used for building and supporting hospitals in Korea. The Anglican Church supported three hospitals located in Chemulpo (Incheon), Jincheon and Baekchon. Among them St. Luke hospital was the first hospital to be built by the hospital naval fund in Chemulpo and became the centre of medical works of Anglican Church from 1905. It means that the activities of St. Luke Hospital considerably represented the Anglican Church’s medical work in Korea.

Therefore, this presentation aims to show their work by analyzing medical reports of St. Luke Hospital. The hospital played an important role in medical activities in Chemulpo from 1891 to 1916, until the hospital was closed. Its role became more important after another hospitals by the Anglican Church in other areas were closed. The reports included medical records, statistics of operations and patients, staff, finance, and so on. Therefore it is good source to understand the practical situation of their medical works, and also could show the relationship between St. Luke Hospital and the two other medical institutions competing with it in Chemulpo. Furthermore, It could represent a medical situation under the Japanese colonial rule.
Historically, Koreans affected by leprosy were forced to undergo sterilization procedures (vasectomies and artificial abortions) by medical authorities in leprosaria owned or supervised by the Korean government. Since 2011, these sufferers have filed a series of lawsuits against the Korean government. In February 2017, the Supreme Court of South Korea upheld the original judgment made by a high court ruling in favor of the plaintiffs. They found that until the early 1990’s, medical authorities routinely sterilized males who wanted to get married and performed abortions on pregnant females without a valid legal basis. The high court ruled that such sterilizations had been illegally conducted, but decided that the Korean government had had “good intentions” in segregating Koreans affected by leprosy from the general population and in providing them with medical services. In this presentation, I show that sterilization, segregation, and treatment for Koreans affected by leprosy are inextricably linked.

In the late 19th century, Western imperialist countries began taking leprosy management seriously, both for managing their colonized countries and for protecting their own territories and people from the disease. These imperialist countries segregated leprosy patients from the general population in their colonized countries. When this initial segregation had been implemented, they began to view leprosy as a disease of uncivilized countries. Japan, a new imperialist power, held the racist belief that leprosy was the symbol of “uncivilizedness.” This mindset held true for the Japanese homeland, and so medical authorities tried to remove the “uncivilizedness” from society with segregation laws. Moreover, the Japanese government introduced segregation policies in two of its colonized countries, Korea and Taiwan. In these countries, leprosy patients became a “national shame,” a target group to be eradicated and sterilized. Eugenics provided the ideological grounds for the sterilization. A secondary justification was to reduce the cost of managing leprosy institutions. Even after liberation from Japanese control, South Korean authorities kept the existing segregation and sterilization policies. At this point, sterilization was justified by medical authorities under the guise of welfare for people affected by leprosy.
Jeong-Eun Jo (Kyung Hee University)

**Session 4: Contagion in East Asia**

British medical missionaries and prevention of contagious diseases in early modern China

Shanghai (上海) is located on the East Coast part of China where the Yangtze River is located and it flows into the East China Sea. The First Opium War ended with the 1842 Treaty of Nanking (南京) with Shanghai included as one of the opening for the treaty ports. In the early phase of the opening, Dr. William Lockhart (1811-1896) of the London Missionary Society established the first western style hospital (仁濟醫院) in Shanghai in 1844. Until now, it is considered as one of the most successful hospitals in Shanghai. After Lockhart left, Dr. Benjamin Hobson (1816-1873), Dr. James Henderson (1829-1865) and other medical missionaries managed the hospital. These British medical missionaries contributed to the establishment of modern medicine in Shanghai through various activities such as disease treatment including contagious diseases, vaccination, hygiene propaganda and medical education. They tried to show the Chinese people the superiority of modern medicine because they believed that medical activities were the best way to spread Christianity in China.

On the other hand, the traditional way of preventing contagious diseases also has affected the medical missionaries. This was because many Chinese relied on Chinese traditional medicine and charity, not on Western medicine and foreign doctors. Taking Lockhart and his Chinese colleague Huang chun-fu (黃春甫) as an example, they tried to inoculate Jenner’s vaccine (牛痘) to help prevent smallpox, but the variolation (人痘) was still actively used after that. Moreover, since the Chinese colleagues having Chinese medical knowledge were involved in the operation of the hospital and the local elites supported the hospital funds, they would have been influenced by them. Medical missionaries were conscious of Chinese charity and they partly accepted the Chinese style. After all, the medical missionary activated a medical system with the fusion of Chinese and Western style according to realistic demands.

Since 1920s, the Chinese doctors who learned the Western medicine were gradually in charge of the mission hospital on behalf of foreign missionaries. The Westernization trend of the medical field in Shanghai was further strengthened. Chinese elites and businessmen opened the seasonal diseases hospital (時疫病院) instead of the old style charity (善堂). These hospitals employed Western-style doctors and offered treatment based on Western medicines. But there was no change in its character as a charity. Since then, the coexistence of traditional way of medical systems and modern medicine maintained for some time.
Jong-Kuk Nam (Ewah Womans University)

Session 5: Medieval Medicine
The Latin translation of Arabic medical texts and its effects on the sexual morality in the 12th and 13th centuries

This paper discusses the struggle between the science of medicine and religion in the Middle Ages. The evolution of European medicine has often been at the mercy of religious and social perception. The relationship between medicine and religion was antagonistic in medieval Europe.

Many physicians of the ancient Greco-Roman world supported the concept that sexual intercourse is necessary for preserving good health. Hippocrates espoused that sexual intercourse has therapeutic value. Rufus of Ephesus, Greek physician and author in the late 1st and early 2nd centuries, stated that sexual intercourse relieves harmful bodily conditions and calms madness. He recommended it as a cure for melancholy and other varieties of madness, and erotic dreams. Galen said that no one abstaining from sexual intercourse will be healthy.

But most of the medicine of the ancient Greco-Roman world was not accepted by Christians in the Middle Ages. In addition, Christian authorities interfered with the sexual conduct of Christians from the beginning of the church’s history. Augustine said that the natural end of sexual intercourse has not been pleasure but procreation and that only sexual intercourse for procreation should be lawful.

Confessional manuals known as the penitential books, have contributed to the Catholic sexual ethic’s shaping and spreading between the sixth and eleventh centuries. Many authors of these handbooks of penance shared the similar belief that sex is impure and sinful and that God allows persons to have sex only for procreation, never for pleasure. In brief, sex was regarded as sinful in the Middle Ages.

Ancient Greco-Roman medical theory and knowledge had a rebirth in Europe as a result of the translation into Latin of Arabic medical texts since the late eleventh century. In the 1100s Constantine the African translated approximately 24 Arabic medical texts into Latin, and provided new terms and concepts of medicine to medieval Europe. His short treatise about sexual intercourse may have caused the most shocking scandal at that time, particularly among ecclesiastics. This book provoked Chaucer to call Constantine the African “cursed monk” in The Canterbury Tales. With the translation of Avicenna’s canon of medicine by Gerard of Cremona, a significant volume of Islamic medical knowledge of sexuality and generation was introduced to Christian Europe. The canon of medicine discussed in detail the health benefits of sexual intercourse.

However, it is difficult to assess to what degree Arabic medical knowledge of sexuality and gender influenced and changed Christian sexual ethics. We may conclude that the transmission to the Latin world of Islamic medical paradigm on sexual attitudes contributed to the gradual transformation of sexual morality in Christian Europe.
Kyung-Lock Lee (HMMP)

Session 5: Medieval Medicine
The social history of the stroke during the Goryeo (高麗) and the early days of the Joseon (朝鮮)

In Oriental medicine, a stroke (中風) is explained by a disease caused by a bad aura of wind. Nowadays the stroke is a very important disease in Korea, but the stroke was not originally important. When we look at its history, it was recognized as a major disease when it came to Joseon dynasty founded in 1392.

I explored the history and the influence of the stroke during the Goryeo (高麗: 918-1392) and the early days of the Joseon (朝鮮: 1392-1910). In the early days of the Goryeo, the ruling class including the king Munjong (文宗) accepted the stroke concept of the Chinese medicine. The stroke of the king Munjong was treated by the Chinese traditional doctors. And the Sinjibeouichwaryobang (新集御醫撮要方), published in 1226, included quite a little prescriptions of the stroke.

However, knowledge of the stroke was popularized until the later days of the Goryeo. The Hyangyakgueupbang (鄕藥救急方), which was edited for the people, included 9 kinds of the stroke prescription. And so many private prescriptions of the people were poured during the end of the Goryeo and the early days of the Joseon. It was the result of a desire to free from the stroke.

As the stroke theory was intensified since the Goryeo, the symptoms, the prescriptions, and medicine had been expanded gradually. In the early days of the Joseon, the stroke became the most important disease and the popular disease. However, the treatment of the stroke was led by the ruling class. It means that treatment of the stroke was useful for the maintenance of power. Therefore, based on the history of the stroke we make certain of the medicalization of the Goryeo and the Joseon society.

Key Words: the Goryeo (高麗), the early days of the Joseon (朝鮮), the Stroke, Oriental Medicine, disease, medicine, medicalization
Hong-Gwan Seo (National Cancer Center, Korea)

Session 6: Disease in Contemporary Korea
How thyroid cancer skyrocketed in Korea – true story of artificial increase in cancer

Many people believe that there is no need to resort to consideration of value when defining health and disease. But if we develop the concept of health and disease in detail there must be a huge grey area. Non-normativism or naturalism defines disease as a purely biological/statistical matter, a deviation from normal functioning. On the contrary, normativism or constructivism is to observe that categories of disease vary from culture to culture and historical period to historical period. It denies the idea of disease as a purely biological/statistical matter. Instead, to define something as a disease always entails value judgments.

We have several good examples. Convulsive disorder was considered a ‘sacred disease’ in Greek. Drapetomania, a conjectural mental illness that American physicians hypothesized to cause black slaves to flee captivity, is now regarded as pseudoscience.

A disease called Sogal (痟渴) was described in an oriental medical textbook called Somun (素問) which have polyphagia, polyuria, polydipsia. We can regard this disease as diabetes mellitus (DM). DM is characterized by recurrent or persistent high blood sugar, and is diagnosed by demonstrating several conditions. Sogal seems to be full-blown DM. If current DM patients go back to old Korea, most of them would not be considered Sogal patients because they are asymptomatic. So no oriental doctor could identify the hidden disease. We can see there have been big changes in diagnostic criteria for many diseases.

We now move on to modern Korea. The incidence rate of thyroid cancer was 0.93 for male, 3.96 for female in 1986-1987, but the rate has increased dramatically to 24.9 for male, 119.6 for female in 2010. In other words, thyroid cancer increased 32.8 times for male and 30.9 times for female during the past 23-24 years.

While the number of new thyroid cancer patients was 2,866 in 1999, it has multiplied to 53,737. This is an 18-fold increase in a decade.

Comparing to other countries, in 1999, the incidence rate of thyroid cancer was 2.1 in UK, 7 in USA, and 7 in Korea in 1999. It has changed to 3.9 in UK, 13.3 in USA, and 72.2 in Korea. Interestingly, the mortality rate of the same disease stayed constant.

Periodic health exam and screening service program became big business among hospitals in Korea. Many hospitals added thyroid cancer screening to the screening program. Ultrasound exam for thyroid cancer is very convenient. The rapid increase in thyroid cancer screening using ultrasound led to increase in detection of non-life threatening thyroid cancer, which in turn led to unnecessary thyroid cancer surgeries. In March 2013, eight physician, including me, formed Physician Coalition for Prevention of Over-diagnosis of Thyroid Cancer and held a press conference highlighting the extraordinarily high incidence of thyroid cancer in South Korea and proposing that screening with ultrasonography be discouraged. Mass media focused this odd phenomenon. In spite of sometimes mean fight back from thyroid surgeons and endocrinologists, the public came to accept that there could be over-diagnosis and overtreatment for thyroid cancer. Subsequently, there has been a marked decrease in thyroid operations in South Korea after a decade of explosive growth. However, the incidence rate of thyroid cancer in Korea remains still high. To prevent unnecessary operations, surgical complications, prescription of pills for treating iatrogenic hypothyroidism of patients, and stigma of having cancer, there is a long way to go. Furthermore, some scientists insist that certain portion of prostatic cancer and breast cancer are also a result of over-diagnosis.

The flooding of high-tech medical equipment and the overcrowding of medical professionals leads to temptation to “create” new disease. We must stay vigilant against these to protect not only the physical health, but also the financial health of the public.
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**Session 6: Disease in Contemporary Korea**
Trends in infectious diseases from 2000 to 2015: opportunities and challenges in South Korea

After 2000, following diversification and chronicization of patterns of disease, the Korean government’s health care policy is undergoing a transition from the previous biomedical model to preventative policies of an active health management model. Additionally, the expansion of global exchange and corresponding increase in domestic exposure to foreign infectious diseases raises the importance of emergency quarantine systems, prevention and control of infectious disease, and the need to establish cooperative systems for the outbreak of infectious disease. This brief article reflects the period from 2000 in the field of infectious diseases and presents vital lessons learned, particularly those based on public disclosure of information as well as public trust in South Korea.

At this stage, climate change, globalization and rapid environmental change, among other factors, are leading to changes in the prevalence and pattern of infectious disease in South Korea. New infectious diseases are emerging, such as human infection of avian influenza or Middle East Respiratory Syndrome (MERS), and advances in diagnostic technology have increased the number of newly-confirmed infectious diseases.

For example, since May 20, 2015, when the first case of Middle East respiratory syndrome (MERS) was reported in South Korea, there have been a total of 180 cases—including 29 deaths—with more than 2,600 people isolated as of June 25, 2015. This emerging infectious disease threatens South Korea’s public health with potentially three generations of transmission; several hospitals have been forced to close temporarily in an effort to stop the contagion, and many patients with chronic diseases have had to suffer other inconveniences regarding their health care. There are two reasons that authorities of South Korea missed an opportunity to successfully control the spread of MERS in its early stages. First, they overlooked the importance of proactive public communication regarding risk, which is key to the effective management of infectious diseases. Second, relevant authorities downplayed the risks of MERS, disappointing the public in the face of an emergency.

Emerging infectious diseases, including the MERS outbreak in South Korea, required a new system based on trust that combines public engagement with core capacities of the government for appropriate and effective surveillance and response. To prevent the spread of infectious diseases as well as to restore the Korean public’s faith in authorities, the government now seeks to enhance their surveillance capacities regarding infectious diseases. These efforts may be the first steps in South Korea’s journey to join the ranks of advanced countries regarding public health.