The concept of medical missions as a fundamental obligation of religion is surprisingly modern. Missionaries spreading the word of churches and philosophies are a very old system of enlarging the influence and size of believers. Medicine is a very recent addition to building a religious community.

The interaction of Eastern and Western concepts of health, illness, and therapy has become a topic for popular media, medical controversy, and difficult scientific experiment and explanation. What is easily ignored is the striking similarity in the fundamental ideas of early medical systems in Greek, Roman, Egyptian, Hindu, Buddhist, Islamic, and Chinese history. The constituents and energies of the human body and spirit had different labels, physical manifestations, and controlling or corrective forces depending upon the culture and the language. The notion of individual life forces - Qi in China, prana in India, soul in Europe and the Mediterranean - which circulated in the body, directed by properties of heat and cold, wet and dry, male and female - is the foundation of ancient and traditional medical systems. Illth, the distortion or destruction of health, is a state of imbalance in the strengths and route of the flow of individual energy [1].

The Mediterranean and Central Asia regions were closely connected from the rise of Hellenic civilization with war, trade, religion, and philosophy all flowing along what was later labeled the “Silk Roads.” Pythagoras, the Sakyamuni Buddha, Confucius, Hebrew and Zoroastrian beliefs were brought briefly into a single empire by Alexander the Great. The appearance and appeal of Christianity developed Western and Eastern branches. Nestorian Christians, migrated from the Middle East establishing small enclaves along the trading routes to China. Ultimately Alopen of Syria established a Nestorian church in Changan (now Xian), the capital city of the Tang Dynasty, beginning in the year 635. For about 150 years (618-755), the Tang Dynasty allowed multiple religions and philosophical beliefs to flourish. Buddhism and Taoism as well as Nestorian Christianity spread throughout China, the Himalayan region, and Central Asia into Mongolia and Siberia to the north, Japan to the east, Persia to the west, and India to the south. A century of internal conflict and civil wars led to the gradual disintegration of the Tang Empire and the establishment of multiple states and ruling families beginning in 875.

The rise and expansion of Islam contributed to the decline of the Tang Empire and the increasing separation of China from the Islamic and Christian cultures of Europe, the Mediterranean and the Near East. Medical theory, therapeutics, and practices acquired regional characteristics. Traditional Chinese medicine already established early in Chinese history, continued to evolve within China [1]. Mahayana Buddhism in the Himalayan and Mongolian regions kept much of the Chinese traditions but added modifications unique to Tibetan and Mongolian traditions. In Southeast Asia, Theravada Buddhist teachings shaped traditional medicine practice. Hindu tradition modified humoral and life force health concepts to formulate Ayurvedic medicine. Greek, Roman, Hebrew, and Christian traditions shaped Unani or Islamic medicine. The scholarship and practice of traditional healers and trained professional physicians in the Islamic world preserved the medicine of Hippocrates, Aristotle, and Galen, added both rigorous professional standards and incorporated much of the herbal and “hands on” practice coming from Asia during the 7th and 8th centuries AD.

The ancient world of the Mediterranean and Central Asia knew the role of mendicant monks and traveling teachers of philosophic argument and religious belief and practice. Socrates and the Buddha...
are perhaps the best known but there were many teachers and missionaries. The origins of Christianity fostered the notion of “evangelism,” of spreading the Gospel. The dissemination of religious belief and the charge to make converts became a feature of the first millennium of the present; a feature not just of Christianity, but of Islam and Buddhism.

For the first 15 centuries of the present era missionaries were teaching and practicing religion, philosophy, and diplomacy, not medicine. The earliest recorded “missions” to Central Asia and China were carried out by monks like Friar William of Rubruck, who traveled through the Mongol Empire in 1253 to 1255 [2]. Traditional medicine teaching and practice had universal similarities. There was no opportunity or need for “medical missionaries” who carried both religious and medicinal concepts and benefits. Early missionaries were intended to save souls, not bodies.

The fertilization of medical science and technology in Mediterranean Europe from Islamic and Asian traditions during the 13th, 14th, and 15th centuries combined with some bold medical and engineering thinking and illustration by Vesalius, da Vinci, Galileo, and the artists and merchants of Italy, Spain, and France produced an explosion of anatomical and mechanical or engineering concepts and illustrations. Illustrations could be transformed into practical machinery. The European Renaissance transformed notions of the human body and its health or illth and the relationship between human beings and nature. Perhaps even more important were the beginnings of capitalism and commercialism that would grow to become the European quest for markets and commodities and the fuel for colonial expansion.

New knowledge of anatomy and therapeutics meant that the West could challenge the traditional medical conceptions of the human body and its ills and well being. Further, it meant that the anatomy of body and spirit had new relationships and that the care of the body could include surgery and therapeutic manipulation different from the balancing practices of traditional medicine.

The development of experimental science in the West replacing traditional and ancient concepts of anatomy, physiology, and therapeutics during the 16th, 17th, and 18th centuries changed the relationship between ancient and modern, East and West. Moreover, by the 18th century and the expansion of colonial and imperial Western or European aspirations, the apparent “backwardness” of traditional medicine became an impediment to the success of commercial and colonial operations. Illness and injury, as opposed to health, sapped the size and strength of colonial military and civilian forces. Maintaining control of occupied cities and countryside required medical men and women to care for and to train expatriate and native staff in hygiene, wound care, and public health. The growth of the European colonial enterprise in Asia and the Americas during the 17th and 18th centuries meant that the control of a region also required the submission or reluctant alliance of native people. Religion became the agency to provide both spiritual and physical support and control. The Spanish and Portuguese Catholic orders relied upon the dedication and skill of their priests and lay brothers to solidify the colonial hold over their expatriates and native populations. Priests and lay brethren were the physicians and missionaries in the 16th, 17th, and 18th century Mexico, Peru, and Brazil.

The colonization of the Americas produced the discovery of cinchona, a febrifuge and antimalarial: the Jesuit bark [3]. The supply of cinchona bark became as important as gold and silver in the expansion of European commerce and empire. Tobacco was the other New World medicinal plant that made colonies profitable. Coca, known for its stimulant effects, did not fuel the colonial enterprise as much as cinchona and tobacco. In the Old World opium poppies, grown in Central Asia and the Middle East, were the source of laudanum and the ancient remedy for pain. During the 18th and 19th century cinchona, tobacco, and opium became the mainstays of health for European colonial expansion.

The West, practiced in the anodyne properties of laudanum, sought both domestic supplies and commercial dominance in the cultivation and distribution of opium, quinine, and tobacco. Because these were medicinal products, colonial powers needed medical agents to provide the semblance of professional practice and purpose, especially in South and Central Asia. During the 19th century, as Europe explored and expanded in Africa, quinine, opium, and tobacco were essential constituents of colonial power. Cinchona trees and opium poppies were planted and grown wherever conditions allowed and became a commodity that fueled wars with China and subdued restless natives and rebellious armies.

The Jesuits established a resident mission in the Portuguese enclave of Macau in the 16th century [4]. The most famous Catholic priest, Matteo Ricci (1552-1610), arrived in Macau in 1582 and eventually settled in Peking in 1601 where he later died. Father Ricci
was a clockmaker and mathematician and his scientific skills allowed him to use astronomy and geography as an entrance into the Imperial Court. He was followed by Father Johannes Terenz Schreck, a physician and mathematician, as well as a friend of Galileo. Father Terenz continued the operation of the Imperial observatory established by Father Ricci and translated a Western anatomy text, possibly a Vesalian derivative, into Chinese. Father Terenz died in 1630 and was succeeded by Father Michael Boyn, also a physician, who translated Chinese medical texts into Latin that were then sent to Europe. In 1692, two nonphysician priests administered quinine, “the Jesuit’s bark,” to the Qing Emperor Kangxi and cured his malignant tertian malaria. Afterwards any Catholic priest with some medical knowledge was appointed physician to the court. The Catholic missions in China were carefully controlled by the Imperial Court and generally were allowed to minister medical care to other Europeans and to members of the court; only occasionally to the general public. After the death of Emperor Kangxi in 1722, the Qing Imperial Court began to restrict the activities of Catholic and European religious, scientific, and commercial missions. By 1775 the Qing Court had forced Chinese converts to renounce their faith and there were no European priests left in China. The growing problem of the opium trade from British India and the influx of imported products from the industrializing centers of Britain and Europe contributed to Chinese suspicions and antipathy to the West. Foreign influence was severely restricted and limited to trading and contacts in Canton carried out through Macau.

At the turn of the 18th to the 19th century the benefits of Western medicine, surgery, and public health knowledge and practice became desirable for commercial and military success and for diplomatic advantage. The British and American Protestant missionary societies recognized the spiritual and commercial advantage that medical missionaries, doctors skilled in Western medicine and teaching Christian principles, would provide [4]. During the first quarter of the 19th century, the Protestant missionary societies initiated and developed their medical missionary strategy in China: the origins of the medical missionary movement throughout Asia and then into Africa.

European visitors to the coastal cities and ports of China continued to come to China despite the restrictions to travel within China and access to the Imperial Court. At the end of the 18th century Canton was the only city open to foreign commerce. Missionaries were not permitted. Foreigners were confined to the “factory district” where they could establish trading posts, but they could only reside in their “factory” during the trading season (May to October) and were not allowed to bring their wives.

Robert Morrison, the first missionary sent by the Society, arrived in Macau in 1807 [4]. He was not a qualified doctor, but he quickly recognized the need for a medical colleague. Requests for medical care by the native people were so common he became convinced that the success of a mission depended upon the combination of medicine, preaching, and teaching. In 1808 an assistant surgeon employed by the East India Company joined Morrison and the design for missions - the school and the hospital adjacent to the church - was established. John Livingstone was replaced by another East India ship surgeon, Thomas Colledge. The high prevalence of blindness in Macau so moved him that he established an ophthalmic hospital in 1827. Colledge, not a pastor, wrote about the need for medicine in missionary work.

“What I should wish to suggest is, that those societies that now send missionaries, should also send physicians to this benighted race who, on their arrival in China should commence by making themselves acquainted with the language; and in place of attempting any regular system of teaching or preaching, let them heal the sick and administer to their wants, mingling with the medical practice, such instructions either in religion, philosophy, medicine, chemistry, etc., as the minds of individuals have been gradually prepared to receive” (Wong and Wu [1], p. 172).

Together Morrison and Colledge, recognizing the prevalence of illness among ordinary citizens and the limitations of traditional physicians in treating a variety of conditions, advised the mission societies in Britain and the United States to combine evangelical work with the practice of medicine and surgery. Their recommendations established the model for medical missionaries. In 1834, Peter Parker, educated in divinity and medicine at Yale, arrived in Macau, the first of a long line of physician-pastors to work in Asia, Africa, South America, and the Oceanic Islands and remote places of the globe [5].
Fig. 1 Dr. Thomas Colledge attending a patient at the Ophthalmic Hospital in Macau (1935). Courtesy of the Hong Kong Museum of Art. From Choa [4].

Fig. 2 Dr. Peter Parker, oil painted by Lamqua (circa 1840), courtesy of Yale University Art Gallery. From Gulick [5].
At the close of the 19th century the expansion of British, European and American exploration and trade illustrated the dangers of irresponsible and inhumane commerce and control: slavery, disease, death, and destruction of indigenous cultures. The burgeoning imperial regions were justifiably labeled “the white man’s burden” and the “white man’s grave,” but the transplantation of indigenous people to Britain and Europe also documented the dangers of so-called civilization. The incentives for medical missionary activity were altruistic to be sure. The need for trained Western medical men and women, however, had commercial, imperial, and scientific origins and altruism often was supplanted or suppressed. The importance of medicine in foreign exploration and exploitation is demonstrated by the medical training or activities of men such as Mungo Park, David Livingstone, Richard Francis Burton, Charles Darwin, Joseph Dalton Hooker, and Thomas Henry Huxley. The “spoils” of their work included territory, commercial markets, scientific specimens such as Kew Gardens, and scientific concepts such as natural selection and evolution.

References