

**An Evaluation of the work of the Edinburgh Medical Missionary
Society, 1841-2011.**

By

J. Anthony Andrew

April 2018

A dissertation submitted to the Faculty of Humanities and Performing
Arts of the University of Wales Trinity Saint David – Prifysgol Cymru Y
Drindod Dewi Sant in partial fulfilment of the requirements of the
degree of Master of Theology

Student No. 1502067

Master's Degrees by Examination and Dissertation

Declaration Form

1. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Name ... J. Anthony Andrew

Date 12 April.....2018

2. This dissertation is being submitted in partial fulfilment of the requirements for the degree of

.....

Name... .. Master of Theology

Date 12 April.....2018

3. This dissertation is the result of my own independent work/investigation, except where otherwise stated.

Other sources are acknowledged by footnotes giving explicit references.

A bibliography is appended.

Name..... J. Anthony Andrew

Date: 12 April2018

4. I hereby give consent for my dissertation, if accepted, to be available for photocopying, inter- library loan, and for deposit in the University's digital repository

Name..... J. Anthony Andrew

Date...12 April.....2018

.....

Supervisor's Declaration.

I am satisfied that this work is the result of the student's own efforts.

Signed:

Date:

Acknowledgements

I should like to thank Professor Bettina Schmidt for her support and guidance on this dissertation.

Thanks also go to the Trustees and Staff of EMMS International for granting open access to their archives, EMMS archivist Patricia Baxter, to the patient librarians at the University of Wales Trinity Saint David – Prifysgol Cymru Y Drindrod Dewi Sant and the University of Edinburgh at New College and not least to my wife for unfailing patience and support.

Table of Contents

Abstract	5
Abbreviations	6
Chinese Names	8
1. Introduction	9
2. Methodology and Literature Review	11
3. A Very Brief History of EMMS International	19
4. Pioneers and Doers	29
5. Teachers and Taught	49
6. Partnership, Enabling and Parity of Esteem	58
7. Conclusions	71
Appendix 1- References	76
Appendix 2 – EMMS Objectives	88
Appendix 3 - Shanghai Conference Resolutions	89
Appendix 4 – EMMS Students (1851-1968)	93

Abstract

This evaluation of the Edinburgh Medical Missionary Society (EMMS) between 1841-2011 concludes that it met its three original objectives. To assess EMMS' archives and contemporary accounts of missions the paper uses three broad phases: pioneers, teachers and partners. EMMS' advocacy of the role of medical missionaries was very effective. As demand for missionary doctors rose, EMMS facilitated the supply of around 440 missionary doctors with grants and training. This was a substantial proportion of the medical missionary workforce and constituted its major achievement. During a period of major missiological, medical and social change it was progressive in its attitudes to women and racial minorities in medicine, in its opposition to the opium trade, and its interdenominational character. Its Livingstone Memorial Medical Missionary Training Institution for serving the sick poor and training mission doctors was much imitated. After enjoying medical missions' hey day in the first half of the twentieth century EMMS latterly focussed on its *Nazareth Hospital*. While this ensured its survival while other organisations withdrew from missionary medicine, it meant it was slow to respond to primary healthcare initiatives in developing countries. It was also by-passed by theological debates about the Christian healing ministry in which its German sister organisation Difäm participated at the Tübingen consultations. However after demerging from the *Nazareth Hospital* EMMS reoriented itself with faith based partners and became involved in primary healthcare in Malawi, Nepal and India. Because EMMS was an auxiliary organisation supporting missions with medical staff, isolating and precisely quantifying its unique contribution to Christian Mission is impossible. However its contemporary peers flattered it by imitation, which suggests that the Western world's old medical missionary society's achievements were more considerable than its low historic profile suggests. Its archives invite further research.

Key Words: Edinburgh Medical Missionary Society, EMMS International, medical missions, Protestant missions, women missionary doctors..

Abbreviations

ABCFM – American Board of Commissioners for Foreign Missions

AMMTI – Agra Medical Missionary Training Institution

ARHAP – African Religious Health Assets Programme

Ch.B. – Bachelor of Surgery (*Chirurgiae*)

CHM - Centre for Health in Mission

CIM – China Inland Mission

CMC – Christian Medical Commission

CMF – Christian Medical Fellowship

CMMA – China Medical Missionary Association

CMS – Church Missionary Society

Difäm – German Institute for Medical Mission, (*Deutsches Institut für Ärztliche Mission (Difäm)*) occasionally Difäem

DRCSA – Dutch Reformed Church of South Africa

EHA – Emmanuel Hospitals Association

EMMS – Edinburgh Medical Missionary Society, (EMMS International)

FBO – Faith Based Organisation

FFM – Friends Foreign Mission

FRCP – Fellow of the Royal College of Physicians

FRCPE – Fellow of the Royal College of Physicians Edinburgh

FRCS – Fellow of the Royal College of Surgeons

FRCSE – Fellow of the Royal College of Surgeons Edinburgh

FRGS – Fellow of the Royal Geographical Society

GOBI – FFF - **G**rowth monitoring, **O**ral rehydration, **B**reast-feeding, **I**mmunisation, **F**amily Planning, **F**emale Education, **F**ood supplements.

INF – International Nepal Fellowship

IRHAP – International Religious Health Assets Programme

LL.D - Doctor of Laws

LMMMTI – Livingstone Memorial Medical Missionary Training Institution

LMS – London Missionary Society

LWF – Lutheran World Federation

MB – Bachelor of Medicine

MD – Doctor of Medicine

MMSC – Medical Missionary Society of China

NHS – National Health Service

PHC – Primary Health Care

PIRHANA – Participatory Inquiry into Religious Health Assets, Networks & Agency

RBMU- Regions Beyond Missionary Union

RNMDSF - The Royal National Mission to Deep Sea Fishermen

RPDP - Royal Public Dispensary for the Poor

SMAA - Syrian Medical Aid Association

SPHC – Selective Primary Healthcare

SSPCK – Society in Scotland for Propagating Christian Knowledge

SPCK – Society for Propagating Christian Knowledge

3WMAC – Third World Medical Attachment Centre

WCC – World Council of Churches

UPMB – United Presbyterian Mission Board

WHO – World Health Organisation

WUMS – Women’s Union Missionary Society

ZBMMS – Zenana Bible & Medical Missionary Society

Chinese Names – Old and Modern Romanised Equivalents:

Canton – Guangzhou;

Hangchow – Hangzhou

Mukden – Shengjang

Dr. Wong Fun – Dr. Huang Kuan

This dissertation uses the terms in the left hand column, as those are the terms that are encountered reading missionary literature of the time. The right hand column gives modern Romanised names in current use.

1. Introduction

The Edinburgh Medical Missionary Society (EMMS International) traces its origins back to 1841. Founded shortly after the *Medical Missionary Society of China* (MMS) (1838) it was the Western World's first medical missionary society. However its historic profile is modest. Because of its role as an auxiliary organisation supporting front line partners the latter caught the attention of historians, hagiographers and missiologists. This dissertation evaluates EMMS' work, and assesses its impact over a period in which medical practice was transformed, missiology became a theological discipline, and medical missions grew from small beginnings to become "The heavy artillery of the missionary army,"¹ founders of major teaching hospitals before receding from world missionary consciousness. In the 170 years covered many missionary societies like LMS vanished and, of five medical missionary societies noted in 1910, only EMMS and the German Institute for Medical Mission, (Difäm)² survived.³ The main evaluation criteria are EMMS' own founding *Aims and Objectives (1841)* (Appendix 2), and comparison with Difäm (f.1910).

Commonly Used Terms:

Grundmann considers that "...the terms medical mission.... and medical missionary have become essentially obsolete."⁴ However for this dissertation "medical missionary" means missionary qualified MB or through one of the Royal Colleges. "Missionary nurse" means a missionary with some formal medical and nurse training. "Missionary medicine" means – "transcultural medical practice in a missionary context",⁵ "Medical missiology" means "a philosophy of medical mission"⁶ and "the Gospel" means the traditional Protestant understanding of the

¹ Walls, "'The Heavy Artillery of the Missionary Army.'" *Studies in Church History*, 1982, Vol. 19, pp.287-297.

² German Institute for Medical Mission, (*Deutsches Institut für Ärztliche Mission (Difäm)*) occasionally Difäm

³ EMMS *Quarterly Papers* 1908-1911 p.290.

⁴ Grundmann, C, "The Contribution of Medical Missions: The Intercultural Transfer of Standards and Values" *Academic Medicine*, Volume 66 no.12, pp. 731-732.

⁵ Jansen, G, "Medical Missiology: An Undeveloped Discipline Without Disciples. A Retrospective Review", *Exchange*, Vol. 24 (3) p.223.

⁶ Jansen, Gerard, "Medical Missiology: An undeveloped discipline without disciples. A retrospective view" *Exchange*, Vol. 24 No.3, p.222.

“good news” of free salvation by faith in the atoning death of Jesus Christ for an individual’s sins. Health means: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.⁷

Dissertation Aims and Objectives:

The dissertation aims to identify the founding vision of the Edinburgh Medical Missionary Society, give a critical account of the developments in its work from 1841-2011 and evaluate the extent to which medical and theological changes over the course of its history have impacted on its founding vision.

⁷ World Health Organisation, “Preamble to the Constitution of the WHO”. Adopted by the International Health Conference, New York, 1946. *Records of the WHO*, 1946 No.2, p.100.

2. Methodology and Literature Review

2.1 Methodology

The research methodology comprises a brief literature review of “medical missiology”, and assessment of primary and secondary textual sources. Most of the contemporary literature was written by missionaries or their sympathisers so there was a lack of documented evidence from patients and contemporary indigenous observers. Records varied in reliability and completeness.

Hagiographic tendencies in writers sympathetic to missions needed careful analysis. The EMMS archives covered 170 years and were too extensive for complete examination for a 15000 word dissertation. The different strands of the archives were sampled over the period, crosschecked against each other and with secondary sources.

The evaluation followed three broad phases, pioneers, teachers and partners which most medical missions experienced successively.⁸ They are not defined historic periods. Within that the dissertation cross-cutting themes consider evolving views of mission and medical missions, the arrival of missiology as a discipline, and medical advances within those phases.

While the approach is mainly qualitative there is some scope for simple quantitative analysis of the numbers of student doctors that EMMS supported, to produce a smoothed time series to show when they flowed into the mission field, and extracting a separate series for women doctors to demonstrate their increasing significance as missionary medicine matured. The opportunity to present the mission societies that they served in simple bar graphs is also taken.

As the researcher is a trustee of EMMS International, the deliberative process must guard against bias as far as possible although it cannot be totally eliminated.⁹

⁸ Van Reken, David, R., *Mission and Ministry: Christian Medical Practice in Today's Changing World Cultures*, (BGC Monograph, 1987) p.6.

⁹ The writer served as a trustee after the period under consideration (1841-2011).

2.2 Literature Review.

The review examined the primary and secondary literature sources about EMMS. It started with previous academic interest, considered chronological histories, primary archival sources, particularly EMMS archives, missiological literature and mission autobiographies and biographies. Evidence enabled the evaluation of EMMS over the three phases of medical missions - “pioneers”, “teachers” and “partners” and addressing cross-cutting issues within them. Databases consulted¹⁰ included the library catalogues of the National Library of Scotland, University of Wales Trinity Saint David and the University of Edinburgh, the Royal College of Physicians Edinburgh, the Royal College of Surgeons Edinburgh, School of African and Oriental Studies (SOAS) reference list of mission archives Google Scholar, ProQuest, PubMed searching under “The Edinburgh Medical Missionary Society”, “EMMS International”, “EMMS” and “missionary medicine”.

EMMS is the Western World’s oldest medical missionary society.¹¹ After 170 years its literary footprint remained modest. William Duff ‘s M.Litt. in medical history high-lighted EMMS’ considerable contribution to the output of Victorian missionary doctors for India.¹² Christoffer Grundmann dedicated his doctoral thesis to EMMS.¹³ EMMS’ archives contain a dissertation in Japanese without an English translation. It appears to refer to EMMS’ Dr. Palm in Japan. Theologian Andrew F. Walls identified two major theological contributions from Scotland’s missionary movement. Firstly its contribution to the practical and strategic planning of medical missionary works,¹⁴ and secondly is its pioneering of missiology by Alexander Duff.

¹⁰ Thomas, Gary, *How to do Your Research Project*, 2nd ed., (London, SAGE, 2013), pp.75-82.

¹¹ Preceded by the Medical Missionary Society of China (1838) and followed by the Syria Medical Aid Association (September 1841).

¹² Duff, William, *Scottish protestant-trained medical missionaries in the nineteenth century and the rise of the Edinburgh Medical Missionary Society*, M.Litt. University of Glasgow, 2010.

¹³ Grundmann, C. *Gesandt du heilen! Aufkommen und Entwicklung der ärztlichen Mission im neunzehnten Jahrhundert*. (Tübingen, 1991), (Sent to Heal! Emergence and Development of Medical Missions in the Nineteenth Century”).

¹⁴ Walls, Andrew J. “Three Hundred Years of Scottish Missions”, in Kenneth R. Ross, *Roots and Fruits: Retrieving Scotland’s Missionary Story*, (Oxford, Regnum, 2014) pp.35-36.

Surprisingly, the EMMS records are omitted from the SOAS reference list of mission archives in their workshop papers.¹⁵ However, EMMS kept detailed records of its work. Its President wrote a thoughtful book on the role of medical missions (Lowe, 1886)¹⁶ with details of the early years. Two brief “histories” by EMMS directors chronicled its work, (Taylor, 1941)¹⁷ and (Wilkinson, 1991)¹⁸ for its centenary and 150th anniversaries. A modern biography of Kaloost Vartan by biographer Malcolm Billings sympathetically recounts the life of an early EMMS graduate who established the *Nazareth Hospital* and in the pioneer phase.¹⁹ Biographies of EMMS graduates Dugald Christie of Mukden,²⁰ William Elmslie of Kashmir²¹ and Duncan Main of Hangchow,²² positively capture EMMS graduates’ experience of the different phases. Theological and missiological references to it such as Walls²³ are few. Modern accounts from nationals of the countries where EMMS’ personnel worked are mainly positive²⁴ about their legacy but some are more critical.²⁵ Such hostile comment that there was focussed generally on medical missions not EMMS. An example was the concern about the theft of Chinese eyes and eye gouging by medical missionaries. Details of this are found in English language papers like Xiaoli Tian’s thesis written many generations after the events.²⁶ This evaluation considers whether EMMS’ auxiliary role and its low profile reflects a modest legacy or an underestimated contribution to world medical mission.

¹⁵ Bickers, R. A. & Seton R., (Eds), *Missionary Encounters: Sources and Issues*, (Richmond, Curzon Press, 1996) pp.243-255.

¹⁶ Lowe, John, *Medical Missions, Their Place and Power*, [1st ed] (London, Fisher Unwin, 1886).

¹⁷ Taylor, H. F. Lechmere, *A Century of Service 1841 1941. A History of the Edinburgh Medical Missionary Society*. (Edinburgh, EMMS, 1941).

¹⁸ Wilkinson, John, *The Coogate Doctors. The History of the Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991) p.9.

¹⁹ Billings, Malcolm., *Vartan of Nazareth – Missionary and Medical Pioneer in the Nineteenth Century Middle East*, (London, Paul Holberton, 2012).

²⁰ Christie, Mrs., *Dugald Christie of Manchuria - Pioneer and Medical Missionary*. (London, James Clarke & Co., 1932).

²¹ Thomson, W. Burns, *A Memoir of William Jackson Elmslie*. 4th edition, (Nisbet, 1891).

²² de Gruche, Dr. D Duncan Main of Hangchow - *Who Is Known in China as Dr Apricot of Heaven Below*. (London, Marshal Morgan & Scott, 1930).

²³ Walls, Andrew, *Mission in the Twenty-First Century*. (New York, Maryknoll, 2008)

²⁴ Simon, Elisabeth B., “Christianity and Nursing in India a Remarkable Impact.” *Journal of Christian Nursing*, Volume 26, Number 2; Bowers, J. Z. “Imperialism and Medical Education in China.” *Journal of the History of Medicine*, Vol. 48, No. 4, p.464.

²⁵ Tian, Xiaoli, “Relocating Science, Medical Missions and Western Medicine in Nineteenth Century China,” Ph.D. Dissertation, University of Chicago, 2011.

²⁶ Tian, Xiaoli, *Relocating Science, Medical missions and Western Medicine in Nineteenth Century China*, Ph.D. thesis, University of Chicago, 2011, pp186-187.

There are primary resources in EMMS' archives, the University of Edinburgh, and Edinburgh's Royal Colleges of Surgeons and Physicians. These include annual reports, minute books, periodicals, occasional papers, public lectures, diaries, student applications and records, hospital records and two manuscript registers of students ²⁷ supported by EMMS. There are copies of the *Occasional Papers*,²⁸ the *Quarterly*²⁹ and its successor the *Healing Hand* magazine, which have publicised and recorded EMMS' for most of its life. Some records are fragile and incomplete but they allowed Taylor ³⁰ and Wilkinson to capture salient events. Developments after 1991 like the demerger in 2002 of *EMMS Nazareth (The Nazareth Trust)* and *EMMS International* and the merger between the *Emmanuel Hospitals Association UK (EHA)* and *EMMS International* (2004) require narration. Taylor and Wilkinson's brevity precludes missiological discussion but their narratives assist navigation of the archives to evaluate EMMS' record. Challenges EMMS' graduates faced included debates on missions, medical missions, tensions between clinical and evangelistic roles, working within colonial structures, rapid developments in medical science, women's entering medicine, resource constraints, HQ – field tensions, indigenous cultural constraints and training local workers.

EMMS predates the theological discipline of missiology. Alexander Duff (1806-1878), a pioneer missionary in India, proposed establishing a Chair of Evangelistic Theology (1866)³¹ and New College, Edinburgh appointed him to that very chair (1867).³² As EMMS developed, reformed theologians like Bavinck, Bosch, and Nussbaum developed missiological frameworks and analytical tools and Roman Catholic theologian Hans Küng devised his church history paradigms.³³ Bosch considers that Küng's six epochs of church history also illuminate the history of

²⁷ EMMS, *Manuscript Registers of Students*. Two neatly kept manuscript registers. (1) small hardback index book. No date, no ref. no. (2) foolscap size hardback index book written initially in 1938. Archive ref. A1.017

²⁸ EMMS, *Occasional Papers* – in the EMMS archives these are usually found bound together with other material such as the Annual Reports.

²⁹ EMMS *Quarterly Paper*, May 1875 No.1 to Feb 1966 Vol. XXII, No.38 thereafter followed by *The Healing Hand*, Vol. XXIII.

³⁰ Taylor, H. F. Lechmere, *A Century of Service 1841 1941. A History of the Edinburgh Medical Missionary Society*. (Edinburgh 1941).

³¹ Millar, A. A., Alexander Duff of India, (Edinburgh, Canongate, 1992) p.192.

³² <http://www.bu.edu/missiology/missionary-biography/c-d/duff-alexander-1806-1878/>

³³ Küng, Hans, *Christianity*. (London, SCM, 1995).

missions.³⁴ EMMS' history falls within Küng's fifth "enlightenment" and sixth "ecumenical" epochs, wherein the enlightenment confidence in reason, human progress and value free knowledge³⁵ gave way to an age of doubt, irrationalism, and pessimism. Confidence in the gospel transmuted into a more generalised benevolence. This powered medical work for a few decades as more evangelistic initiatives weakened. During EMMS' first 170 years eschatological changes influenced world missions as traditional amillenarianism shaded into postmillenarian optimism which in turn was later affected by premillennialism.³⁶ Conflict between conservative and liberal theologies and the resulting tension between social action and gospel proclamation also affected EMMS' leadership, their donors and their graduates overseas.

Different commentators employed various models to study world mission. All have limitations due to the heterogeneity of mission work, its wide geographic spread and societal variations. Indian and Chinese societies had complex ancient written religious systems to compete with Christianity. Neat periods and dates do not work, but in most mission situations common phases are discernable. David R. van Reken's³⁷ monograph on mission uses a broad brush three phase model of medical missionary activity: the pioneer "Doing Phase", the second "Teaching Phase" and the third "Enabling Phase" or partnership of mutual learning and esteem. Harold Balme also perceived three phases: pioneering expansion into new territory, consolidation into hospitals and lastly devolution to local doctors and nurses.³⁸ Hikon Chon sub-divides the second phase to produce four stages: pioneers, mission hospitals, medical education and finally community health care.

³⁴ Bosch, D. J., *Transforming Mission – Paradigm Shifts in the Theology of Mission*, (New York, Maryknoll, Orbis, 1995) pp181-182.

³⁵ Nussbaum, S., *A Readers Guide to Transforming Mission* (New York, Orbis, 2005) Pp.87-89.

³⁶ Bosch, D. J., "In Search of a New Evangelical Understanding", in Nichols, Bruce, J., *In Word and Deed*, Lausanne Committee for World Evangelisation, (London, Paternoster, 1985) p.69.

³⁷ Van Reken, David, R., *Mission and Ministry: Christian Medical Practice in Today's Changing World Cultures*, (BGC Monograph, 1987) p.6.

³⁸ Balme, Harold, "The Trend of Medical Mission Policy in China" *International Review of Missions*, April 1924, 13(2) p.247.

³⁹ Based on these models I have developed a three-phase framework adapted with slightly altered titles to structure the dissertation.

EMMS started during the age of exploratory pioneer mission worked through the heroic age, post Great War angst, restored ecumenical confidence, and subsequent doubts and confusion. The great missionary and World Council of Churches' (WCC) conferences are useful waymarks in understanding missionary the missionary context in which EMMS' graduates worked. Particularly significant for EMMS were the *Shanghai Conference* (1907) with its explicit interest in medical work, the *Edinburgh Conference* (1910) the subsequent *Edinburgh Medical Missionary Conference* (1910) sponsored by EMMS, and the evangelical *Lausanne Covenant* (1974).

The medical profession largely supported missionary medicine; although there were exceptions like the *Lancet's* first editor Thomas Wakely ⁴⁰ so professional medical and nursing literature can offer helpful insights. Nineteenth century medicine developed rapidly. Missionaries progressed from using extensively advertised boxes of bandages and drugs, ⁴¹ to eye surgery, anaesthetics, antiseptics, malaria control, sanitation, scientific microbiology, large Chinese and Indian teaching hospitals and then grassroots primary health care (PHC). As medicine became a prestigious united profession (1858)⁴² and medical science advanced missionary doctors sometimes eclipsed clerical leaders in the field. Women progressed from being missionaries' helpers to medically qualified missionaries advancing medical care, evangelism, female role models and feminine health.

³⁹ Chon, Hikon, *Medical Missions –Theory and Practice*, (Fuller Theological Seminary, Pasadena, 1992) Course papers MM 595, p.21.

⁴⁰ Young, Theron Kue-Hing, " "The William Osler Medal Essay": A Conflict of Professions: The Medical Missionary in China, 1835-1890 " *Bulletin of the History of Medicine*; May 1, 1973; 47, 3; ProQuest p. 250.

⁴¹ World Missionary Conference, *A Brief History of Missionary Enterprise*, Lecture Memoranda, World Missionary Conference, Edinburgh 1910, (London, Burroughs Welcome, 1910) pp289-306 Burroughs Welcome & Co., *A Brief History of Missionary Enterprise in Antient and Modern Times – Lecture Memoranda – World Missionary Conference, Edinburgh 1910*. (London, Burroughs Welcome & Co., 1910) p.293-300.

⁴² The 1858 (21 & 22 Vict. c 90).

Medical and feminist histories reveal interesting links with missions and EMMS personnel during these changes.⁴³

Primary sources include first hand accounts of non-EMMS trained missionaries. Autobiographies and journals are helpful such as Livingstone's,⁴⁴ and secondary biographies of Robert Moffat,⁴⁵ Mary Slessor,⁴⁶ Hudson Taylor,⁴⁷ Albert Schweitzer,⁴⁸ and Lily Gaynor.⁴⁹ These reveal how representative EMMS' experience has been.

Missionary sources need careful evaluation as the writers operated within a complex framework. While claiming a deep faith commitment to truth, they had to maintain the support of their mission board, and donors. Tensions existing between missionaries, HQ and donors are exposed in more private documents. Biographical accounts tend to be favourable. Mrs Christie recorded vivid experiences of her husband's work, but cannot be expected to be totally dispassionate.⁵⁰ Some accounts are franker than others about shortcomings, which necessitated further reading to establish validity. Missionaries functioned within existing power structures. Publicising illness, social abuses and maladministration to supporters might provoke a self-defeating local backlash. Livingstone's tensions with the LMS, his anti-slavery work, relations with Portuguese colonialism and awareness that the King of Portugal's cousin was Prince Albert exemplify this.⁵¹ In different places missionaries fought foot binding, child marriage and widow burning. Hostility, sometimes mutual, from

⁴³ Jex-Blake, Sophia, "Medical Women", *The Nineteenth Century – a monthly review*, November 1877, Vol.129, p.698 and p.701.

⁴⁴ Livingstone, David, *Missionary Travels and Researches in South Africa*. (London, 1875) new edition (London, John Murray, 1899).

⁴⁵ South African missionary and David Livingstone's father in law, who laid the memorial stone of the Livingstone Memorial Medical Missionary Training Institution in the Cowgate, 9 June 1877.

⁴⁶ Hardage, Jeanette, *Mary Slessor, Everybody's Mother*. (Cambridge, 2010).

⁴⁷ Taylor H, *Biography of James Hudson Taylor*, (London, Hodder, 1965).

⁴⁸ Schweitzer, Albert, *On the Edge of the Primeval Forest and More from the Primeval Forest*. (1922) And Schweitzer, Albert, *My Life and Thought - an Autobiography*. (Leipzig, 1931).

⁴⁹ Gaynor L. & Butterworth J., *God's Needle: How Lily Gaynor brought hope and healing to the land of the witchdoctors*, (Monarch, 2013).

⁵⁰ Christie, Mrs., *Dugald Christie of Manchuria - Pioneer and Medical Missionary*. (London, James Clarke & Co., 1932).

⁵¹ Bridges, R.C., "The Sponsorship and Financing of Livingstone's Last Journey", *African Historical Studies*, I (1) pp. 82-83.

indigenous healers, competing religions and emerging nationalist consciousness occasionally affected EMMS graduates.

Another extensive literature discusses whether missions were 'tools of imperialism,'⁵² exploiters of colonialism's opportunities, or agents ameliorating its adverse effects. This small-scale evaluation precludes analysis and discussion of these issues unless they affect EMMS' graduates.

This leads into the main four sections starting with a brief chronological history against which to read the succeeding three phases and the cross cutting themes within them, before moving into the conclusions.

⁵² Headrick, Daniel R., *The Tools of Empire. Technology and European Imperialism in the Nineteenth Century* (New York, OUP, 1881).

3. A Very Brief History of EMMS International

The *Edinburgh Association for the Sending of Medical Aid to Foreign Countries* was formed in 1841 following a gathering in Dr. John Abercrombie's (1780-1844) Edinburgh home and two subsequent public meetings. It became the *Edinburgh Medical Missionary Society* two years later.⁵³ Abercrombie was Edinburgh's leading consulting physician, well connected with the medical and church establishments and also served in the *Royal Public Dispensary for the Poor* (RPDP) (1776-1964).⁵⁴ Thought to be the first such free institution in Scotland the RPDP received its Royal Charter in 1818.

Dr. Abercrombie's soirée attracted leading doctors and ministers to meet the famous Rev. Dr. Peter Parker (1804-1888) who had done ophthalmic work in Canton as a missionary initiative and had helped found the world's first medical missionary society the *Medical Missionary Society in China* (MMSC)(1838)⁵⁵ for which he sought support. He had left China due to the First Opium War (1839-1842). Abercrombie's young society was already well connected to Edinburgh's University, its medical colleges⁵⁶ and its clerical establishment. The Chairs of Divinity and Physic, Rev. Dr. Thomas Chalmers and Professor W. P. Alison, respectively became Vice-Presidents, Dr. John Coldstream (1806-1863) friend of Charles Darwin became associate secretary and the Chair of Surgery James Syme, who wielded "the sceptre of surgery in Scotland",⁵⁷ became members. In 1841 the society adopted as its core objectives: the dissemination of information on medical missions, aiding allied medical missionary societies, and rendering assistance to actual mission stations.⁵⁸

⁵³ In 2002 EMMS demerged forming *EMMS Nazareth* (the Nazareth Trust), and the Edinburgh Medical Missionary Society International or EMMS International. For convenience all are referred to as "EMMS" except *EMMS Nazareth* (the Nazareth Trust), which receives its full title.

⁵⁴ MacDonnel, G. P., "John Abercrombie M.D., *Dictionary of National Biography*, (London, Smith Elder & Co, 1885) Vol. 1. Pp. 37-38.

⁵⁵ Grundmann, C. H. "Mission and Healing in Historical Perspective", *International Bulletin of Missionary Research*, Vol. 32 No. 4 p.186.

⁵⁶ The Royal College of Physicians of Edinburgh; the Royal College of Surgeons Edinburgh.

⁵⁷ Paterson, Robert, *Memorials of the Life of James Syme*, (Edinburgh, Edmonton & Douglas, 1874) p.285.

⁵⁸ Appendix 4.- the full text of the objectives,

The first objective of disseminating information was undertaken vigorously through a sustained campaign of lectures on missions for university medical students⁵⁹ and generous prizes were offered for essays on medical missions.⁶⁰ These were subsequently published. EMMS collected data about medical missionaries and recorded forty-five serving worldwide, with fourteen in Chinese Treaty Ports and nine in the Near East in 1849.⁶¹ Annual Reports were published and a medical missionary magazine styled *Occasional Papers* was produced from 1854. Given its close links between some missionaries and the trading community it is interesting that EMMS wrote against “the crying enormity” of the China opium trade (1856).⁶² The second objective was achieved quickly though modestly through small donations - £50 to the *Medical Missionary Society of China* (MMSC) and £25 to the *Syrian Medical Aid Association* (SMMA) formed in 1841 just after EMMS and whose Secretary had attended the inaugural meeting. This resulted in Rev. Dr. Kerns’ departure from London to establish a dispensary in Beirut.⁶³ The third objective was more difficult. EMMS failed a request to supply a doctor for China, but sent Dr. William Wallace to serve in Parsonstown (Birr) in Ireland (1848-1854). Apart from this EMMS did little.⁶⁴ In 1857 it sent its first overseas missionaries: Dr. David Paterson (d.1871) with the Free Church of Scotland Mission to Madras, India and Dr. Wong Fun (1829-1870) with the *London Missionary Society* (LMS) to Hong Kong and Canton.

Observing the problems missionary societies faced recruiting trained doctors EMMS resolved to financially assist medical missionary students’ education

⁵⁹ Edinburgh Medical Missionary Society, *Lectures on Medical Missions, Delivered at the Instance of the Edinburgh Medical Missionary Society*, (Edinburgh, Sutherland and Knox), 1849)

⁶⁰ The First in 1849 was won by Mr R. Marley a London medical student. EMMS Eighth Report 1851 p.6 In 1852 Edinburgh student D. H Paterson won. EMMS Tenth Annual Report 1853, p.10. (EMMS Archive A1 001)

⁶¹ Wilkinson, John, *The Coogate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), pp. 8-9.

⁶² EMMS, *Opium Smoking in China*, Occasional Paper of the Edinburgh Medical Missionary Society, No. XII, October 1856. (RSCSE Library – Bound Pamphlets Vol. II 1828 - Pamphlet 18, p.3.).

⁶³ Wilkinson, John, *The Coogate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), p.9.

⁶⁴ Lowe, John, *Medical Missions as illustrated by some letters and notices of the late Dr. Elmslie*, (EMMS, Edinburgh, 1874) p.vi.

(1851).⁶⁵ Paterson and Wong Fun were already supported. The latter was Peter Parker's protégé and medical assistant. At graduation the eminent James Young Simpson (1811-1870) described Wong Fun as the first Chinese medical graduate of a European University.⁶⁶ After starting slowly the supply of missionary doctors was EMMS' main role until the mid 1960's. From 1973 EMMS offered grants to medical, nursing and health related students undertaking electives in mission situations under *the Third World Medical Attachment Centre (3WMAC)* programme.

The ill-health of the urban poor troubled evangelical Christians, and voluntary dispensaries developed in the nineteenth century, inspired by foreign examples.⁶⁷ EMMS founding Director Peter Handyside (1808-1881) opened a dispensary at Edinburgh's West Port called *the Missionary Dispensary and Hospital for the Irish Poor* (1853) for refugees from Ireland's Potato Famine (1845-1852) using medical students. Demand was high so he acquired larger premises at 39 Cowgate ("Coogate") (1858). EMMS student John Lowe persuaded the Society to adopt it to provide practical medico-evangelistic training for its students. EMMS did so and named it the *Edinburgh Medical Missionary Dispensary and Training Institution* (1861). Dr. Hunter and then Dr. William Burns Thomson (1859)⁶⁸ followed as Superintendents. Thomson resided there from 1866, as cholera broke out. He published the *Medical Missionary Journal* from 1865. Dispensary work continued to expand as Rev. Dr. John Lowe (1871) became Superintendent after ill health curtailed his service in Kerala. 56 George Square, Edinburgh was acquired (1868) primarily as a home for EMMS students, though occasionally non-medical missionary candidates like Olympic gold medallist Eric Liddell resided there.⁶⁹ Growing patient numbers necessitated new premises. After three and a half years

⁶⁵ Directors of EMMS, Memorandum, *Aid to Students*, (1851).

⁶⁶ Wilkinson, John *The Coogate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), p.13.

⁶⁷ Heaseman, K. J. "The Medical Mission and the Care of the Sick Poor in Nineteenth Century England", *The Historical Journal*, VII, 2, (1964) p232.

⁶⁸ W. Burns, *W. Burns Thomson – Reminiscences of Medical Missionary Work*, (London, Hodder & Stoughton, 1895) pp.26-27.

⁶⁹ Recollections of Dr. George Graham Cumming (EEMS g.1929) for Formosa - <http://www.ericliddell.org/dr-george-graham-cumming-a-fellow-student-recounts-his-memories-of-eric-liddell-at-edinburgh-university/> (Accessed 21 February 2018).

fund-raising, under Princess Louise's patronage, £10000 was raised. The Rev. Robert Moffat father-in-law of the late Dr. David Livingstone laid the memorial stone (1877). The new facility was inaugurated, *the Livingstone Memorial Medical Missionary Training Institution* ⁷⁰(LMMMTI) (1878) after the LMS missionary doctor who was also a corresponding member of EMMS. It was built next to the Magdalen Chapel where Scotland's reformation leaders had met.⁷¹

EMMS' example was imitated by the creation of similar societies in Glasgow (1844), Aberdeen (1847-1848), Belfast (1846) and Liverpool (1863) to promote overseas medical missions.⁷² Dr. Martyn Scudder who had worked in India founded the *American Medical Missionary Society* (AMMS) in Chicago (1885), following *the New York MMS* (later *the International MMS*) which supported students financially and through a training institution. The *Deutsches Institut für Ärztliche Mission (Difäm)* (1906) was established and another in Stuttgart (1898).⁷³ Heasman notes that other cities created medical mission dispensaries on the Edinburgh model, including Liverpool (1866), Bristol (1871), Paris,⁷⁴ Philadelphia (USA) (1879) and Dublin (1890). ⁷⁵

Between the 1860s and the 1960s EMMS supported over 440 ⁷⁶ students through their medical education and these served with over sixty missionary organisations worldwide.

⁷⁰ Lowe, John, *Medical Missions – Their Place and Power*, (London, Fisher Unwin, 1886) pp217-218.

⁷¹ Lowe, John, *Medical Missions – Their Place and Power*, (London, Fisher Unwin, 1886) pp224-225.

⁷² Wilkinson, John, *The Coogate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), p.21.

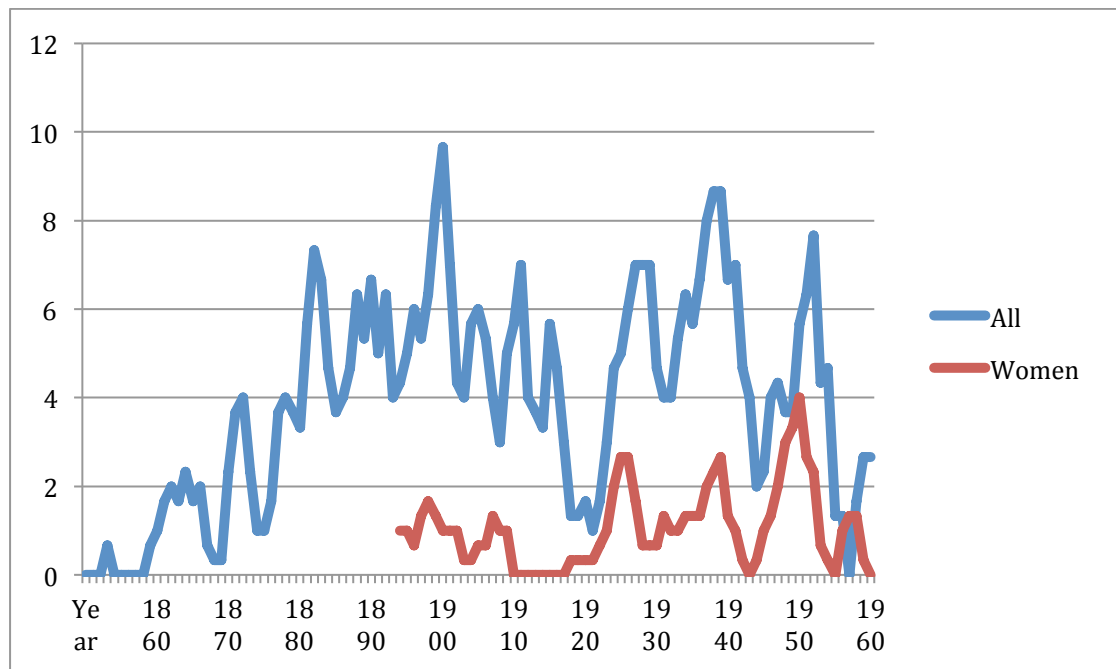
⁷³ *ibid*, p23.

⁷⁴ Lowe, John, *Medical Missions – Their Place and Power*, (London, Fisher Unwin, 1886) pp224-228.

⁷⁵ Heasman, K. J., "The Medical Mission and the Care of the Sick Poor in Nineteenth Century England", *The Historical Journal*, VII, 2, (1964). p,234.

⁷⁶ Appendix 4 is a list of EMMS students, which while imperfect represents the best information extracted from EMMS archives to date.

Figure 3.1: 3 Year Moving Average of Numbers of all EMMS Doctors & Women Doctors

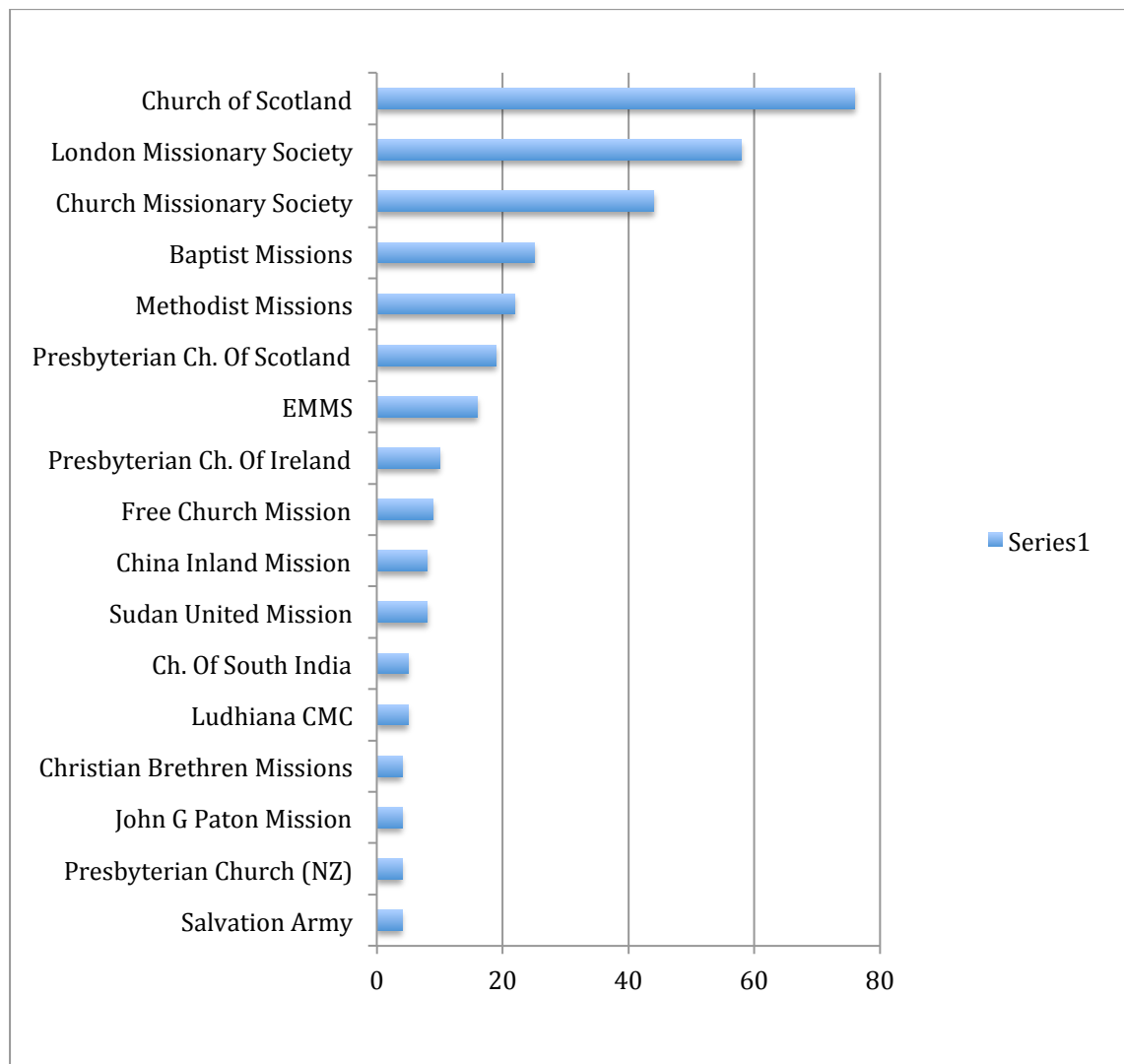


Data: EMMS. Appendix 4 lists the student missionary doctors supported by EMMS.⁷⁷

After a slow start numbers increased steadily from the 1860s to a peak around the turn of the century. There were dips around the two world wars and a final peak in the 1950s.

⁷⁷ EMMS, manuscript registers of students. EMMS, *Manuscript Registers of Students*. These two records are found within the EMMS archives. They are two neatly kept manuscript registers. The first is a small hardback index book. The second is foolscap sized hardback index book written initially in 1938 and with the archive reference A1.017. Both have been added to over time, and the authors' identities are unclear. The sources of information about the dates students graduated, retired, married or died came from, their destinations, mission societies or when the last entries were made are unclear. The two records agree very closely but not completely. Nevertheless when compared against other sources they seem reliable.

Figure 3.2: Main Missions where EMMS Trained Doctors Served



Data adapted from John Wilkinson⁷⁸ using a large sample of 324 of EMMMS missionaries. ⁷⁹ Over 440 medical missionary students supported by EMMS are listed in Appendix 4.

As the above graph shows, EMMS' non-denominational character is striking. ⁸⁰ It simply stipulated that students worked with Protestant missions. Understandably

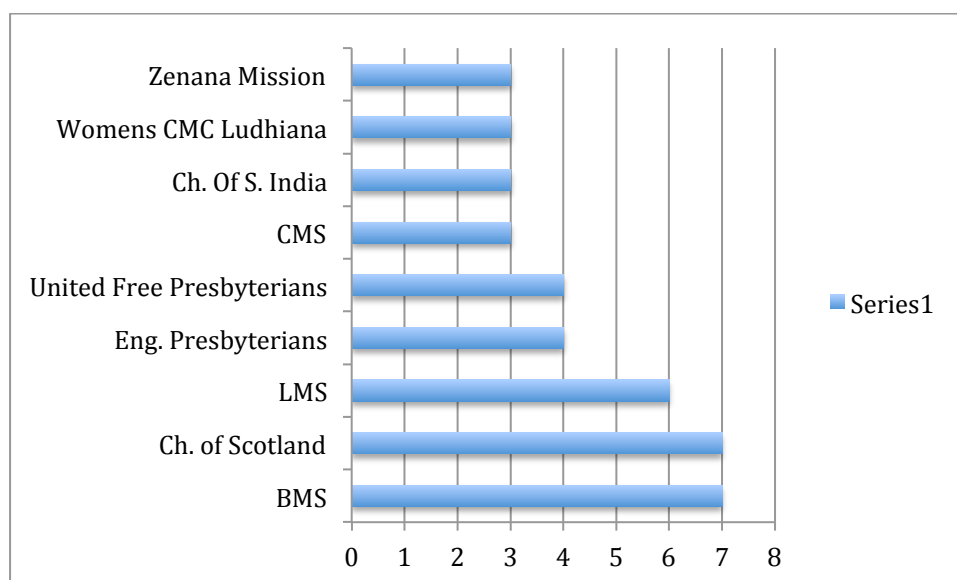
⁷⁸ Wilkinson, John, *The Coogate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), p.82.

⁷⁹ The difference from the "Total" of approx.. 440 medical missionaries reflects some working for small societies, or freelancing or Royal Army Medical Corps wartime service. (see Appendix 4).

⁸⁰ Duff, William, "Scottish Protestant-Trained Medical Missionaries in the Nineteenth Century and the Rise of the Edinburgh Medical Missionary Society." M.Litt. Thesis, University of Glasgow, (2010), http://encore.lib.gla.ac.uk/iii/encore/record/C_Rb2840329_p.8. Also ⁸⁰ Lowe, John, *Medical Missions as illustrated by some letters and notices of the late Dr Elmslie*, (EMMS, Edinburgh, 1874) p.vii.

EMMS being Scottish, Presbyterian denominational societies were heavily represented, but so was the non-denominational London Missionary Society (LMS). Through them EMMS' was influential and its geographic reach was extensive. Missionary societies favoured colonies like Southern and Central Africa and India, and trade partners like China. EMMS graduates went to India, China, Africa and elsewhere in roughly equal proportions. "Elsewhere" meant Grieve and Mumford worked in Labrador, Carl Rudolph Marx in Tibet, Walker in Chile, Scott and Bolton in Smyrna and Hoernle in Isfahan.

Figure 3.3: Missionary society destinations of women doctors.



Data adapted from John Wilkinson.⁸¹

Figure 3.1. reveals EMMS' support for training female medical students for missionary service from the 1890s, and Figure 3.3 shows which missions they served. While a number served with women's missions most served in non gender specific roles.

Mid-nineteenth century female medical students faced opposition. Many considered them unfitted for medical work. The church was reluctant to have women in responsible positions and institutional barriers existed in education.

⁸¹ Wilkinson, John, *The Coogate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), p.82.

EMMS always supported women's role as missionary doctors. W. Burns Thomson trained female nurses in the Cowgate,⁸² and EMMS pioneered a short paramedical course for women missionaries⁸³ who were interested in work such as the Zenana missions. Edinburgh University's resistance to female admissions until 1869⁸⁴ led some women to sit the Edinburgh's Royal Colleges' examinations instead. Eleanor Montgomery was EMMS' first graduate (1895) who went to Gujarat, "followed by eight other women and by the end of 1896 another eight women were under EMMS funded training...."⁸⁵

EMMS received the bequest of Hawthornbrae (1892), a large house in Duddingston for convalescence accommodation for Edinburgh's poor. In 1920 it helped 400 women and children. After its sale EMMS used the proceeds to offer financial grants towards respite care and in 2009 assisted 30 families.⁸⁶

Significant initiatives included EMMS' student Dr. Kaloost Vartan (1835-1908) who went to Beirut with the *London Society for Sending Aid to the Protestants in Syria* (1861). That year he moved to Nazareth to establish a dispensary, and shortly after EMMS sent medical equipment. From 1864-1865 he was supported privately by Burns Thomson Superintendent of the Cowgate dispensary, and then by EMMS. Despite difficulties including the Great War, EMMS persisted in Nazareth and developed the "Hospital on the Hill".⁸⁷ Between the 1960s and 2002 this was EMMS' most prominent work. It trained Palestinian nurses and midwives⁸⁸ and survived the Second World War, Israeli independence, the Six Day

⁸² Thomson, W. Burns, *W. Burns Thomson – Reminiscences of Medical Missionary Work*, (London, Hodder & Stoughton, 1895) p.182.

⁸³ Duff, William "Scottish Protestant-Trained Medical Missionaries in the Nineteenth Century and the Rise of the Edinburgh Medical Missionary Society." M.Litt. Thesis, University of Glasgow, (2010), http://encore.lib.gla.ac.uk/iii/encore/record/C_Rb2840329, p.84.

⁸⁴ Clemo, Elisabeth, *Women Becoming Professionals: British Secular Reformers and Missionaries in Colonial India, 1870-1900*, MA thesis, University of Victoria, 2012, p.24.

⁸⁵ Duff, William, "Scottish Protestant-Trained Medical Missionaries in the Nineteenth Century and the Rise of the Edinburgh Medical Missionary Society." M.Litt. Thesis, University of Glasgow, (2010), http://encore.lib.gla.ac.uk/iii/encore/record/C_Rb2840329, p.85.

⁸⁶ EMMS, *Healing Hand*, Autumn/Winter 2010, Vol. 67, No.3 p.10.

⁸⁷ Ziadat, Adel A., "Western Medicine in Palestine, 1860-1940: the Edinburgh Medical Missionary Society and its Hospital", *Canadian Bulletin of Medical History*, Vol. 10, 1993, pp.272-274.

⁸⁸ Ziadat, Adel A., "Western Medicine in Palestine, 1860-1940: the Edinburgh Medical Missionary Society and its Hospital", *Canadian Bulletin of Medical History*, Vol. 10, 1993, p.275

War and the Gulf Wars. It continued separately from EMMS after the 2002 demerger as *EMMS Nazareth* (later the Nazareth Trust).

In 1881 Dr. Lowe was asked to start a medical mission in Damascus by the *British Syrian Mission*. In 1882 EMMS ex-student Dr. Mackenzie was sent, followed by Dr. F. I. Mackinnon (1884) who founded a dispensary. By 1893 EMMS had raised enough money to build a hospital, eventually named the *Victoria Hospital*. This survived both world wars, but by 1957 inflation, rising costs and political changes led to its closure and it was given to the Syrian authorities to use as an eye hospital.⁸⁹

By 1952 the arrival of the NHS⁹⁰ (1947) had made the Cowgate Dispensary redundant. Students had access to government grants and so EMMS' bursaries were unnecessary. The 56 George Square was closed, and administrative premises in Mayfield were acquired by EMMS (1961). As work contracted these were closed (1987) and EMMS moved its HQ to Washington Lane, Gorgie, Edinburgh (1991).

The phase of large mission hospitals passed in the 1950s as many post colonial governments took over healthcare. Divested of its hospitals, Damascus (1957) and Nazareth (2002) EMMS merged with *Emmanuel Hospitals Association* (EHA) (2004). EHA was responsible for about twenty neglected ex-mission hospitals in rural India. EMMS/EHA modernised these vital country hospitals so they could attract and retain staff and approach self-sustainability. Contemporaneously EMMS found other faith-based organisations (FBOs) as partners in Malawi and Nepal to supplement government healthcare, for the poorest communities. Thus EMMS became involved in Primary Healthcare (PHC). This included maternity and childcare, early involvement in HIV/AIDS care, work with the disabled (Nepal), assistance with training nurses, midwives and ancillary medical workers (Malawi), and palliative care. With its partners it adopted holistic approaches to meeting the medical, social and spiritual needs of patients and their families.

⁸⁹ EMMS *Quarterly*, 1958, Vol. XXII, No. 10, pp109-112.

⁹⁰ The National Health Service (Scotland) Act 1947 10 & 11 Geo. 6. c.27.

Through these changes EMMS and its local partners engaged with modern medical practice. However theologically it left the development of Biblical thought about the modern church's relationship to medicine and healing to external theologians like Beate Jakob ⁹¹ of Difām, the Tübingen thinkers, and Bob Lambourne. Unlike the early years EMMS had little theological expertise on the Board. EMMS still supported curative hospital medicine through partners like EHA, but as part of a public healthcare and community medicine programme.

By 1911 EMMS could be satisfied that it had helped convince the missionary world of the need for medical missionaries, only to see that slip away in the later twentieth century crisis of missionary confidence. A few theologians convinced WCC and WHO that there was a role for twentieth century FBOs, but EMMS was not a part of it.

EMMS had made the initial case for medical missions and provided a substantial portion of the medical missionary workforce. Through its trained doctors it played a major role in the early twentieth century dominance of medical missions. It helped leave a legacy of mission hospitals, and medical schools that became major institutions. EMMS graduates also helped shape the medical and nursing professions in China, India and southern Africa and assisted in the transfer of Western scientific medicine to these countries.

⁹¹ Jakob, Beate, "Witnessing to Christ Today: Promoting Health and Wholeness for All", *International Review of Missions*, Vol. 101, No.1, pp132-152.

D4. Pioneers and Doers

When EMMS was born the discipline of missiology did not exist but there had been serious disputes about mission. *The Scots Confession* (1560) preface clearly said: “And this glad tidings of the kingdom shall be preached throughout the world for a witness to all nations and then the end shall come.” However little happened, either through manpower shortages ⁹² or perhaps convictions that the ‘Great Commission’ ⁹³ applied only to the apostolic age as articulated by the Lutheran theologian Johann Heinrich Ursinus (1608-1667) and the University of Wittenburg which opposed Justinian von Welz for urging Lutherans towards mission. ⁹⁴ During the Scottish revival called the “Cambuslang Wark’ (1742) prayers sought the spread the gospel worldwide. John McLaurin (1658-1699) and Jonathan Edwards (1703-1758) prayed for the worldwide proclamation of the Gospel. John Erskine (1721-1803) of Greyfriars, Edinburgh, sent Edwards’ book ⁹⁵ to English Baptist John Sutcliff. It then passed into the hands of Northamptonshire Baptists including John Fuller and William Carey (1761-1834).⁹⁶ Carey then published his famous pamphlet ⁹⁷ about converting the heathen and he proposed establishing the *Baptist Missionary Society* (BMS) (1792). This was a landmark in Protestantism’s major missionary endeavour to preach the gospel overseas through para-church societies rather than the churches.

They were not the first. Roman Catholic missions grew in the sixteenth and seventeen centuries,⁹⁸ with religious orders working in China and Latin America

⁹² Duncan, Graham, A. The origins and early development of Scottish Presbyterian missions in South Africa (1824-1865), *Studia Hist. Ecc.* [Online] 2013 Vol.39 No.1. [Cited 2018-03-06]. Available from http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1017-04992013000100006&Ing=en&nrm=iso. ISSN 2412-4265.

⁹³ Matt. 28:28

⁹⁴ Ahonen, Risto, A, *Mission in the New Millennium*. (Helsinki, FELM, 2000) pp.129-130.

⁹⁵ Edwards, Jonathan, *A Humble Attempt to Promote Explicit Agreement and Visible Union of God’s People in Extraordinary Prayer for the Revival of Religion and the Advancement of God’s Kingdom on Earth*, (1747).

⁹⁶ Walls, Andrew S., “Three Hundred Years of Scottish Missions” in Ross K. R. (Ed), *Roots and Fruits – Retrieving Scotland’s Missionary Story*, (Oxford, Regnum, 2014) p.10.

⁹⁷ Carey, William, *and An Enquiry into the Obligations of Christians: To use means for the conversion of the heathens*, (Leicester, 1792).

⁹⁸ Needham, N, *2000 Years of Christ’s Power, Vol. 4 The Age of Religious Conflict*, (Fearn, Christian Focus, 2016) p.77.

for nearly three hundred years.⁹⁹ Swedish King Gustavus Vasa (1523-1560) sent Lutheran missionaries to the Sami people. Lutheran pietist Thomas von Westen (1682-1727) followed. Meanwhile Peter Heyling (1607-8 – died post 1652) theologian and physician to Fasilides (1632-1667) the Ethiopian King translated the New Testament into Amharic.¹⁰⁰

Gradually, Pietist Protestants consciousness of their missionary obligation grew. Danish King Frederick IV (1699-1730) consulted the Pietist Auguste Hermann Franke (1663-1727) before sending Ziegenbalg (1682-1719) and Plütschau (1676-1752) to the Danish East India Company colony of Tranquebar. Subsequently their missionary Benjamin Schulz (1689-1760) worked in British Madras with the *Society for the Propagation of Christian Knowledge* (SPCK).¹⁰¹ In New England David Brainerd (1718-1747) ministered to Georgia's indigenous peoples through the *Scottish Society for the Propagation of Christian Knowledge* (SSPCK). John Thomas (1757-1801) was a medical missionary in Calcutta before Carey and preached in Bengali.¹⁰² He returned and influenced the establishment of BMS (1792) and taught Carey Bengali. Theologians considered whether 'barbarous and heathen nations'¹⁰³ should be evangelised or whether they required prior education preparatory to the gospel revelation because Paul mainly evangelised cities. Opponents of this view, like John Erskine, argued that Paul had evangelised Malta's 'rough islanders'.¹⁰⁴ The Church of Scotland's General

⁹⁹ Dominican Montesinos in Hispaniola in 1511 protested about the treatment of the natives, Jesuit Francis Xavier left for the Far East in 1540. Comby, Jean, *How to Understand the History of Christian Mission*, (London, SCM, 1996) p.65, p.63.

¹⁰⁰ Needham, N, *2000 Years of Christ's Power, Vol. 4 The Age of Religious Conflict*, (Fearn, Christian Focus, 2016) p.77-78.

¹⁰¹ Needham, N, *2000 Years of Christ's Power, Vol. 4 The Age of Religious Conflict*, (Fearn, Christian Focus, 2016) p.79-80.

¹⁰² Chute, A. C., *John Thomas 1757-1801 First Baptist Missionary to Bengal*, (Halifax N.S., Baptist Book and Tract Society, 1893), Preface. p.1.

¹⁰³ A phrase used in the debate on mission at the General Assembly of the Church of Scotland 1792. White, Gavin, "'Highly Preposterous'; Origins of Scottish Missions", *Records of the Scottish Church History Society*, 19: 2 (1976) p.111.

¹⁰⁴ Acts 28: 2 (New English Bible). Erskine is believed to have asked the Moderator to pass him a copy of the Bible, "Moderator, Rax me that Bible' so he could quote from it. The evidence lies in an unnamed eyewitness recorded by Robe, James, *Narrative of the Revival of Religion at Kilsyth etc.*, 1840 edition p.201, and rediscovered by Dr. James Anderson of Formosa.

Assembly (1796) supported the missionary ideal, but without action.¹⁰⁵

Authoritative missionary statesmen Rev. Alexander Duff (1806-1878) invested much energy in elite English language education in India, believing that educated beneficiaries would appreciate Christianity's self-evident virtues, so the Gospel would percolate down through society. This reflected postmillennialist and enlightenment epoch optimism where progress and the Gospel seemed indissolubly linked. Medical missions fitted this narrative about preparing the Kingdom for Christ's return and EMMS was established against this background.

EMMS faced another debate about the roles in mission of non-ordained missionaries, particularly teachers and doctors. Should medical missionaries be doubly qualified and ordained like Rev. Dr. Peter Parker (1804-1888) to minister medically and spiritually? Were they mere auxiliaries to their ordained colleagues? Some worried that medicine might edge out Gospel evangelism.¹⁰⁶ Rufus Anderson (1796-1880) of the *American Board of Commissioners for Foreign Missions* (ABCFM) terminated Parker's employment on these grounds.¹⁰⁷ From inception in 1841 the Edinburgh Society energetically advocated doctors as both clinical and evangelistic missionaries.

American missionary E.C. Bridgman (1801-1861), in Canton, saw the evangelistic opportunity for missionary doctors. Parker was appointed by and arrived in 1834. He established an eye hospital in Canton (1835). Parker, Colledge and Bridgman, motivated by their post-millennial vision, promoted the formation of the *Medical Missionary Society in China* (MMSC) (1838)¹⁰⁸ the world's first such body.¹⁰⁹ Meanwhile in 1841 ordained Scots medical missionary Doctor David Livingstone

¹⁰⁵ Walls, Andrew J. *ibid*, Watt, Hugh, "Moderator Rax Me that Bible", *Scottish Church History Records*, Vol. X. (1950) p.54, and White, Gavin, " 'Highly Preposterous': Origins of Scottish Missions" *Records of the Scottish Church History Society* 19.2 (1976): 111-24;

¹⁰⁶ Williams, C. Peter, "Healing and Evangelism: The Place of Medicine in Later Protestant Missionary Thinking", in Williams, C. Peter (Ed.), *Studies in Church History*, 1982 Volume 19, p.272. (CUP for the Ecclesiastical History Society).

¹⁰⁷ Latourette, Kenneth S., "Peter Parker Missionary and Diplomat," *The Yale Journal of Biology and Medicine*, January 1936 Vol. 8(3) p. 245.

¹⁰⁸ Parker, P, Bridgman, E. C., Colledge T. C., circular reprinted in the *China Repository*, Dec. 1836, p.132. quoted in Lazich, M., C., *E. C. Bridgman and the Coming of the Millennium: America's First Missionary to China*, Ph.D dissertation, New York University, Buffalo, 1997.

¹⁰⁹ Hardiman, David, "Introduction" in , *Healing Bodies, Saving Souls. Medical Missions in Asia and Africa*, Hardiman, David (Ed.), (Amsterdam, New York, Rodolphi, 2006, p.12.

(1813-1873)¹¹⁰ arrived in Kuruman, Africa to serve the *London Missionary Society* (LMS) alongside Rev. Robert Moffat (1795-1883). Later (1858), EMMS' General Committee unanimously made Dr. Livingstone a Corresponding Member of the Society in recognition of his work.¹¹¹

While sceptics queried mission doctors usefulness many missionaries acquired rudimentary medical training and a medicine chest mainly to serve mission colleagues.

Missionaries lacked immunity to unaccustomed diseases such as malaria, yellow fever and dengue, which took a terrible toll. When Dr. Rudolph Fisch of the Basel mission arrived at the Gold Coast he found 150 missionaries' graves mostly due to malaria and blackwater fever.¹¹² In Dr. Harry Guinness' Congo Expedition (1891) he got fever and his companions McKittrick and Luff died.¹¹³ Doctors could have alleviated much suffering. Central and Western Africa remained inaccessible to Europeans until prophylactic quinine was used consistently. Livingstone pioneered this by producing and prescribing his "rousters", compound pills containing quinine. Successors used purer forms and larger doses.¹¹⁴ In the field missionaries encountered great needs among indigenous peoples arising from injury, disease, and problematic childbirth, which demanded a response. David Livingstone commented:

At every village I am besieged for medicine, the poor creatures often suffer intensely for want of a little assistance.¹¹⁵

Gradually mission societies accepted medical practitioners as auxiliaries to ordained missionaries with medical work for local people a subsidiary priority. In

¹¹⁰ Meiklejon, J.W., "David Livingstone" in Douglas J.D, (Ed), *The New International Dictionary of the Christian Church*, (Exeter, Paternoster, 1974) p. 599.

¹¹¹ EMMS, *Sixteenth Report, 1859* records Livingstone as a Corresponding Member of the EMMS Committee; EMMS Reports 1858-1871 (EMMS Archive A1 003). (Added 4 March 1858)

¹¹² Olpp, G. "The Contribution of Germany to Medical Missions" *International Review of Mission*, July 1931 Vol. 20 (3) p.405.

¹¹³ Mackintosh, C. W., *Dr. Harry Guinness – the Life Story of Henry Grattan Guinness MD FRGS*, (London, RBMU, 1916) p.45.

¹¹⁴ Robert, Dana, L., *Christian Missions – How Christianity Became a World Religion*, (Oxford, Wiley, 2009) p.84.

¹¹⁵ Livingstone, D., letter to T I Prentice Kuruman 2 Dec. 1841, *David Livingstone Letters & Documents 1841-1872*, Ed., Timothy Holmes, (London, James Curry, 1990) p.21.

Nyasaland (Malawi) the *Dutch Reformed Mission of South Africa* (DRMSA) initially lacked doctors so its nineteen missionaries at Mvera, Kongwe and Mkoma depended on the Scottish Livingstonia mission. A leopard mauled A. C. Murray (1895), and the government's Doctor Grant arrived after five days. Three weeks after the mauling Dr. George Prentice (EMMS. 1894) heard of Dr Grant's visit and left Livingstonia to provide three weeks of vital aftercare.¹¹⁶ Care of a missionary was the priority and precious time expended on it.

Even so medical missionaries and their societies struggled to prioritise their roles as doctors and evangelists. Livingstone was ambivalent about his medical work:

But Livingstone always regarded the practice of medicine as being of secondary importance to his work as a missionary. It is significant that he never established a hospital in Africa. Indeed soon after arriving at Kuruman, he told his old tutor Cecil, 'I feel it my duty to have as little to do with it [the treatment of disease] as possible.' Lest absorption in medicine turned him into a useless drone of a missionary.'¹¹⁷

His Scottish Enlightenment training in scientific empiricism fuelled his interest in geographic exploration,¹¹⁸ to pave the way for commerce and the gospel, and thus eliminate slavery. He was prescient in considering both the wider needs of the community as well curing individuals patients. Unfortunately the Portuguese exploited his discoveries for their commercial and slaving enterprises.¹¹⁹ His later medical work produced scientific observation of tropical diseases, and local remedies, of interest to medical academics at home.¹²⁰

Parker saw his medical work as his Christian witness. Others like EMMS graduates Kaloost Vartan (1835-1908) in Nazareth¹²¹ and Dugald Christie in Manchuria (1855-1936) performed as doctor and evangelist just like EMMS' Cowgate

¹¹⁶ Smit, J., "The Contribution to Medical Work and Nursing by the Pioneer Missionaries of the D.R.C. Mission in Nyasaland (Malawi) From 1889 -1900." *Curationis*, 1988, Vol. 11, No.1, p.23.

¹¹⁷ Ransford, Oliver, *David Livingstone: the Dark Interior*, (London, John Murray, 1978) p. 78.

¹¹⁸ Robert, Dana, L., *Christian Missions – How Christianity Became a World Religion*, (Oxford, Wiley, 2009) p.83.

¹¹⁹ Robert, Dana, L., *Christian Missions – How Christianity Became a World Religion*, (Oxford, Wiley, 2009) p.85.

¹²⁰ Ransford, Oliver, *David Livingstone: the Dark Interior*, (London, John Murray, 1978) p. 79.

¹²¹ Salim Abboud (Chief Pharmacist Nazareth) quoted in - Billings, Malcolm, *Vartan of Nazareth Missionary and Pioneer in the Nineteenth Century Middle East*, (London, Paul Holberton, 2012) p.83.

Dispensary students.¹²² However training for ordination after medical studies risked the atrophy of clinical skills.

As pre-millennialism gained influence mission committees hesitated to spend scarce resources on doctors. Urgent gospel proclamation began to nudge out post-millennialism's longer time horizon. Pre-millennialists Christabel Pankhurst (1880-1958)¹²³ and Henry Grattan Guinness (1835-1900)¹²⁴ advocated immediate widespread Gospel preaching to expedite Christ's return. In the 1840s doctors were costly and time consuming to train but offered western medical procedures little better than local ones. Earlier evangelicals like John Wesley (1703-1791) were unenthusiastic about doctors. In "Primitive Physick" he publicised his own remedies,¹²⁵ although he had trained staff at the Foundry dispensary (1747).¹²⁶

Parker however had an advantage as Western ophthalmic surgical procedures surpassed local techniques.¹²⁷ Canton had many patients prepared to risk consulting the foreigners to improve their eyesight. Traditional missionaries struggled to engage societies with sophisticated religions like China and India. In China missionaries were confined by Treaty to the Canton port area,¹²⁸ so ophthalmic surgery became a magnet to draw people towards Christian

¹²² Burns Thomson, W., "Reminiscences of Medical Missionary Work", *quoted in Heasman, Kathleen "The Medical Mission and the Care of the Sick Poor in Nineteenth-Century England." The Historical Journal*, 1964, Vol. 7, (2) p.233. Kenneth R. Ross, *Roots and Fruits: Retrieving Scotland's Missionary Story*, (Oxford, Regnum, 2014) p.64.

¹²³ Pankhurst, Christabel, *The Lord Cometh: the World Crisis Explained*, 3rd Ed. (London, Marshal Morgan & Scott, 1923).

¹²⁴ Guinness, Henry Grattan, *The Divine Programme of the World's History* (London, Hodder & Stoughton, 1889).

¹²⁵ Wesley, John, *Primitive Physick*, (1747).

¹²⁶ Hattersley, Roy, *A Brand from the Burning – a Life of John Wesley*, (London, Little, Brown, 2002) p.219.

¹²⁷ Tian, Xaioli, "Rumor and Secret Space: Organ-Snatching Tales and Medical Missions in Nineteenth-Century China," *Modern China*, 2015, Vol. 41(2) p.203.

¹²⁸ The *Canton System* (1757–1842) whereby China controlled trade with western powers by directing all trade through Canton (Guangzhou), until the Nanking Treaty 1842 after the First Opium War.

evangelism.¹²⁹ Patients awaiting treatment were taught Scripture and given literature.

Practical evangelistic considerations aside, most idealistic medical missionaries believed they were following Christ's ministry combining word and healing action seamlessly. They remembered Jesus' Commission to the seventy-two to, "...heal the sick there, and say, 'the kingdom of God has come close to you.'" ¹³⁰ As Bosch ¹³¹ put it and Wedel echoed later (2010) "diakonia" was an integral part of witness (*martyria*) and its threefold expression, proclamation (*kerygma*), fellowship (*koinonia*) and service (*diakonia*). ¹³² Sider rejected subsuming "the Great Commission" (Mt.28.18-20) in *kerygma* and "the "Great Commandment" (Mt. 22.39) in *diakonia* as he saw them as scissor blades pivoting round *koinonia*.¹³³

In practice missionary clinicians did pursue holistic healing, spiritually and physically through the Gospel, and medicine together. Nevertheless eye surgery diffused suspicion of foreigners, established goodwill and credibility, which encouraged spiritual receptivity. Although later hostile rumours circulated about missionaries' eye gouging and the theft of Chinese eyes ¹³⁴ western medical treatment was generally welcomed. As MacGowan said:

Drs. Colledge and Parker have, by their hospitals in that empire, already done much to dispel the prejudices of the Chinese, and to impress them with more enlarged and liberal feelings towards the barbarians of the West. The hospitals which philanthropy has planted on their borders, are accomplishing more than the artillery of the whole civilized world would effect, in breaking down their great wall, not that which repelled the Tartars of the North, but the loftier and stronger barriers of pride and prejudice, which have made them scorn all other lands and people as

¹²⁹ Walls, A. F. "The Heavy Artillery of the Missionary Army." *In Healing and the Church*, Shiels, W. J. (Ed.) (Oxford, Basil Blackwell, 1982) pp.287-297.

¹³⁰ Luke 10: 9-10. (The Commission to the Twelve in Matthew 10: 7-8 similarly mentions healing as part of their mission)

¹³¹ Bosch, David, J. *Witness To The World: The Christian Mission in Theological Perspective*, (London, Marshal Morgan & Scott, 1980) p.227.

¹³² Wedel, T. O. "Evangelism's Threefold Witness Kerygma, Koinonia," *The Ecumenical Review*, Vol. 9, No. 3. p.225.

¹³³ Sider, R., *Evangelism, Salvation and Social Justice*, (Bramcote, Grove Books, 1977) p.19.

¹³⁴ Tian, Xiaoli, *Relocating Science, Medical missions and Western Medicine in Nineteenth Century China*, Ph.D. thesis, University of Chicago, 2011, pp186-187.

vassals and barbarians. A dozen surgeons, armed with their scalpels, can do more in this way than legions of bayonets.¹³⁵

Parker left Canton during the First Opium War (1839-1842) and began promoting medical missions. Edinburgh's clerics and doctors who heard him absorbed his vision of doctors as missionaries practising science in Gospel service healing spiritually and bodily. Missions then commanded wide public interest.

Edinburgh's Lord Provost Sir James Forrest Bt. chaired the first public meeting on 30th November at the Royal Hotel, Princes Street. Three objectives were agreed: to circulate information about medical missionary work, to aid other organisations involved in medical missionary work and to offer assistance at missionary stations, to as many professional agents as funds permitted.¹³⁶ The full text of the Objectives is found in Appendix 2.

EMMS focused initially on advocacy, arguing for missionary doctors in missionary societies. Some like Peter Parker's ABCFM were sceptical.¹³⁷ It also campaigned to encourage young men to train as missionary doctors through a vigorous programme of public lectures and publications,¹³⁸ which offered essay prizes¹³⁹ and literature for medical students.

EMMS also collated data about medical missionaries, with whom and where they worked. They listed thirty-two in 1844.¹⁴⁰ Its publications publicised worldwide medical missions through journals like *EMMS Quarterly*, which printed reports from its network of corresponding members.

¹³⁵ MacGowan, Daniel, J. *Claims of the Missionary Enterprise on the Medical Profession*, an address delivered before the Temperance Society of the College of Physicians and Surgeons of the University of the State of New York, October 28 1842, (New York, William Osborne, 1842) p.14-15

¹³⁶ Appendix A2. EMMS Objectives - full text.

¹³⁷ Latourette, K. S. "Peter Parker Missionary and Diplomat", *Yale Journal of Biology and Medicine*, January 1936, 8(3), p.245.

¹³⁸ EMMS, *Lectures on Medical Missions; Delivered at the Instance of the Edinburgh Medical Missionary Society*. (Edinburgh, 1849) and EMMS, *Addresses to Medical Students. Delivered at the Instance of the Edinburgh Medical Missionary Society*. (London, A & C Black, 1856).

¹³⁹ The First in 1849 was won by Mr R. Marley a London medical student. EMMS Eighth Report 1851 p.6 In 1852 Edinburgh student D. H Paterson won. EMMS Tenth Annual Report 1853, p.10. (EMMS Archive A1 001).

¹⁴⁰ EMMS Third Annual Report 1845, p.31 in (EMMS Archive A1 001).

The second object of aid to other medical missionary organisations was swiftly if modestly implemented.¹⁴¹ EMMS' income from December 1841 until January 1849 was around £100 p.a. and its grants reflected that. £25 was sent to the London based *Syrian Medical Aid Association*¹⁴² (1842) and Rev. Dr. Kerns opened a dispensary in Beirut (1843). £50 was sent to the *Medical Missionary Association in China* (1843).¹⁴³

The third objective of assisting medical mission stations "as funds permitted" took longer to achieve. Proposals for training for young Chinese medical assistants came from Peter Parker's CMMA, and England's Royal College of Surgeons¹⁴⁴ without result. In 1846 EMMS unsuccessfully sought a doctor for China. In 1847 the Irish Presbyterian Church needed a dispensary doctor for the poor of Parsonstown (Birr) near Shannon. Dr A W Wallace was appointed and supported by EMMS for six years.¹⁴⁵ By 1847 EMMS had appointed one practitioner, at home, not overseas. Eventually, Dr. John O. Evans was appointed to Mirzapore, India (1853).¹⁴⁶ It is unclear why recruiting qualified men was problematic but it may have been due to their need to recoup their training costs. So EMMS decided to financially support students aspiring to become medical missionaries (1851).¹⁴⁷

Its first students were remarkable individuals. Dr. David H. Paterson, the essay prize-winner and Dr. Wong or (黃寬, Huang Kuan) (1828-1879), graduated from Edinburgh University (1855) where the ceremonial address was given by Professor James Simpson (1811-1870). He served as an EMMS Director and made distinguished contributions to midwifery and anaesthesia. Paterson served the Free Church of Scotland mission in Madras and Wong Fun served LMS in China.

¹⁴¹ EMMS First Annual Report 1842, p.5. (EMMS Archive A1 001).

¹⁴² Founded 30 September 1841 in London; Edinburgh Medical Missionary Society Reports 1841-1858. (EMMS Archives Ref: A1 002)

¹⁴³ John Wilkinson, *The Coogate Doctors. The History of the Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991) p.9.

¹⁴⁴ MacGowan, Daniel, J. *Claims of the Missionary Enterprise on the Medical Profession*, an address delivered before the Temperance Society of the College of Physicians and Surgeons of the University of the State of New York, October 28 1842, (New York, William Osborne, 1842) p.17.

¹⁴⁵ Wilkinson, John, *The Coogate Doctors. The History of the Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991) p.10.

¹⁴⁶ Coldstream, J., "History of Medical Missions" in EMMS, *Addresses to Medical Students. Delivered at the Instance of the Edinburgh Medical Missionary Society*. (London, A & C Black, 1856). p.227.

¹⁴⁷ EMMS, Eight Annual Report (1851), "Aid to Students" p.7-8 & Appendix Section II, pp 11-13.

Simpson highlighted Wong Fun as a ‘meritorious and modest student’ and China’s first graduate from a European University. Such was the interest created that Dr. Fun addressed EMMS’ in 1856.¹⁴⁸ He was presented with eye surgery instruments and went to Hong Kong (1857) where the Second Opium War (1856-1860) delayed him. Then he moved to Canton to assist the LMS hospital (1858-1861) after which he left the LMS. He worked and taught at the American Canton hospital and helped introduce Western medical techniques into China. He entered private practice, worked for the Customs Service then gravitated back to the Canton Medical School (est. 1866) and later translated medical textbooks into Chinese.¹⁴⁹ He is honoured with a plaque at Edinburgh University commemorating ‘the first Chinese student to study in Europe’ and the city of Zhuhai gave the university a bronze statue in 2007.

Meanwhile the CMS realised that medical missions could open up Kashmir and sent Dr. Elmslie (EMMS g. 1864) to work there,¹⁵⁰ followed by T. Maxwell (EMMS g.1871) and Arthur Neve (EMMS g. 1880).

While EMMS pioneered medical missions, social changes accelerated which influenced future operations. The Disruption of the Church of Scotland (1843) fractured its mission work and many missionaries like Alexander Duff in India joined the Free Church, as did EMMS Director Thomas Chalmers. Initially EMMS graduates tended to serve Free Church missions.

The *Royal Public Dispensary and Vaccine Institution* of Edinburgh (1776) had been founded by Andrew Duncan (1744-1828) to offer outpatient care employing medical students.¹⁵¹ The Irish Potato Famine (1845-1852) drew thousands of refugees into Edinburgh’s Old Town slums. EMMS founder member Dr. Peter Handyside established a small dispensary (1853) for the Irish poor as the sick

¹⁴⁸ EMMS, “The Departure of Dr. Wong Fun for China”, *Occasional Paper of the Edinburgh Medical Missionary Society*, No. XII, October 1856. P.7. (RCSE Pamphlets Vol. II. 1828 - Pamphlet 18, p.7

¹⁴⁹ http://www.cityofzhuhai.com/2017-01/03/c_65533.htm (Accessed 6 December 2017).

¹⁵⁰ Lowe, John, *Medical Missions as illustrated by some letters and notices of the late Dr Elmslie*, (EMMS, Edinburgh, 1874) p.5.

¹⁵¹ SOAS Web-site: <https://archiveshub.jisc.ac.uk/search/archives/689702bf-6c5a-30ca-b4d9-272eb62b2f2b?terms=%22Medicine%22> (Accessed 1 January 2018).

struggled to get non-institutional treatment other than at hospital outpatients departments.¹⁵²

EMMS student John Lowe suggested EMMS' adopt the Cowgate dispensary to train missionary medical students in clinical practice and evangelism (1861). This occurred when Professor James Millar's proposal was accepted at the EMMS AGM. Supplying missionary societies with doctors experienced in clinical and evangelistic practice through the Cowgate dispensary was radical.

The Edinburgh initiative took the other missionary society boards by surprise...by 1870, they could no longer argue that the expense of the medical missionary, was so prohibitive as to debar him from employment...the Edinburgh Medical Missionary Society had created the first, truly professionalized missionary support organisation in Great Britain...and would provide, free of any charge, a medical missionary for foreign service, to any who requested it.¹⁵³

Dr. David Paterson returned from Madras (1868) to succeed Superintendent Burns Thomson. The latter left office after a difference of opinion with the EMMS board¹⁵⁴ about the management of the dispensary while leaving vivid accounts of patients hearing preaching while awaiting treatment,¹⁵⁵ and his legacy of successful students.

Victorian Edinburgh witnessed women's struggle for medical education. Sophia Jex-Blake¹⁵⁶ and four colleagues¹⁵⁷ matriculated at Edinburgh University (1869).¹⁵⁸ This victory was their first battle in a war in which their needs to attend anatomy classes, obtain clinical experience and sit examinations were repeatedly frustrated by Edinburgh University. By the later nineteenth century women had

¹⁵² Heasman, Kathleen "The Medical Mission and the Care of the Sick Poor in Nineteenth-Century England." *The Historical Journal*, 1964, Vol. 7, (2) p.231.

¹⁵³ Duff, William, *Scottish protestant-trained medical missionaries in the nineteenth century and the rise of the Edinburgh Medical Missionary Society*, M.Litt. Thesis, University of Glasgow, 2010, p.75.

¹⁵⁴ EMMS Board minutes 1868-1870, and Wilkinson, John, *The Cowgate Doctors – the History of The Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991), p.16.

¹⁵⁵ Burns Thomson, W., *Reminiscences of Medical Missionary Work*, quoted in Heasman, Kathleen "The Medical Mission and the Care of the Sick Poor in Nineteenth-Century England." *The Historical Journal*, 1964, Vol. 7, (2) p.233. Kenneth r. Ross, *Roots and Fruits: Retrieving Scotland's Missionary Story*, (Oxford, Regnum, 2014) p.64.

¹⁵⁶ Somerville, J. M., "Dr. Sophia Jex-Blake and the Edinburgh School of Medicine for Women (1886-1898)", *Journal of the Royal College of Physicians Edinburgh*, 2005, Volume 35, pp.261-267.

¹⁵⁷ Edith Pechey, Helen Evans, Matilda Chaplin, Isabel Thorne.

¹⁵⁸ <https://www.ed.ac.uk/medicine-vet-medicine/about/history/women/sophia-jex-blake-and-the-edinburgh-seven> (Accessed 6 December 2017).

established their own medical colleges.¹⁵⁹ As qualified practitioners women massively affected medical missions in the later 'Pioneer Period' and 'Teaching Period' and provided about a third of missionary doctors.

Contemporaneously Alexander Duff argued that missiology was a serious theological discipline. He asked the General Assembly of the Free Church to found a chair of "evangelistic theology" at New College, Edinburgh. It would integrate with other theological disciplines and expose students to other world religions and cultures.¹⁶⁰ He became its first occupant (1867).

Missiologists following in Duff's footsteps have described the changing theological background within which EMMS worked. K  ng's Enlightenment Epoch of reason, natural law, idealism and progress was becoming his Ecumenical Epoch of doubt, and concern that spiritual and moral progress had failed to progress with technology and reason.¹⁶¹ Eschatological views among Protestants changed which affected attitudes to mission. From about 300CE to 1700CE Augustine and most Christians understood Christ's millennial reign as foretold in Revelation Ch. 20 to be an allegorical, non-literal, visionary unveiling of spiritual reality outside time. This was amillennialism, as understood by the reformers Luther and Calvin and by Puritan influenced Scottish Christians¹⁶² when EMMS was founded.

However by the eighteenth and nineteenth century particularly after America's 'Great Awakening', some theologians saw Christ's Kingdom, "the millennium" being established within time to pave the way for Christ's second coming. This "postmillennialist" viewpoint galvanised missionary endeavours to prepare for Christ's return to his Kingdom through social action, education and Gospel preaching. With the secular scientific revolution in the background for social reforming Christian Pietists like, Franke (1663-1727), and the Enlightenment

¹⁵⁹ Edinburgh School for Medicine for Women (1886-1898) by Jex Blake, and The Medical College for Women (f. 1889-90 – Chambers Street) by Elsie Inglis.

¹⁶⁰ Walls, Andrew S., "Three Hundred Years of Scottish Missions" in Ross K. R. (Ed), *Roots and Fruits – Retrieving Scotland's Missionary Story*, (Oxford, Regnum, 2014) p.35.

¹⁶¹ K  ng, Hans, *Christianity – Its Essence and History*, (London, SCM, 1995). English translation John Bowden 1995. Frontispiece, pp.678-679, p.766.

¹⁶² Bauckham, R. J., "Millenium" in *The New Dictionary of Theology*, Ferguson S. B. & Wright D. F. (Eds) (Leicester, IVP, 1988) pp428-430.

influencing the Wesley brothers,¹⁶³ faith in action through energetic proselytising and social reform aimed to transform the world before Jesus came back.¹⁶⁴

Alexander Duff shared this postmillennialist confidence in Gospel empowered progress by investing in long-term education work in Calcutta. For him the Church, the Gospel and Western education were preparing the world for the kingdom.¹⁶⁵ Duff's first General Assembly (1837) speech on mission influenced Dr. Coldstream who served EMMS as Secretary (1841-1863). Duff's written sermon, after the Calcutta epidemic (1844), pleading for healing led to the foundation of the Medical College Hospital there. Conceptually medical missions' view of holistically healing men's souls and bodies fitted comfortably within post-millennial missiology.

Empowered by this theology, missionary doctors also benefited from secular medical developments including a confident, unified medical profession with clear standards (1858),¹⁶⁶ prophylactic quinine for malaria (1840s),¹⁶⁷ anaesthesia (c.1847), clinical thermometers and Nightingale's Crimean nursing reforms (1854).¹⁶⁸ Hanson discovered the Leprosy bacterium (1873); Dr. Snow investigated cholera sources (1854), Lister used carbolic as disinfectant (1866) Finlay discovered yellow fever's mosquito carrier (1881) and Koch identified the TB bacillus (1882). In this key period Western empirical scientific medicine's advantages over local tradition based practices increased beneficially for medical missions.

Edinburgh University was ideal for training medical missionaries. Unlike Oxford and Cambridge it had no denominational entry restrictions. Unfortunately women could not graduate until 1894 and did not until 1896. The University and the Edinburgh Royal Colleges of Physicians and Surgeons organised lectures and

¹⁶³ Charles Wesley (1707-1788), John Wesley (1703-1791).

¹⁶⁴ Kuzmič, Peter, "History and Eschatology: Evangelical Views", in Nicholls, Bruce J., *In Word and Deed Evangelism and Social Responsibility*, (Lausanne Committee for World Evangelisation, World Evangelical Fellowship) (Exeter, Paternoster, 1985), pp138-142.

¹⁶⁵ Millar, A. A. *Alexander Duff of India* (Edinburgh, Canongate, 1992) p.86, pp137-138.

¹⁶⁶ The Medical Act 1858 21 & 22 Vict. c 90).

¹⁶⁷ Lowe, John, John, *Medical Missions as illustrated by some letters and notices of the late Dr Elmslie*, (EMMS, Edinburgh, 1874) p.164.

¹⁶⁸ Edinburgh School for Medicine for Women (1886-1898), and The Medical College for Women (f.1889-1890).

demonstrations and clinical experience could be gained at the Royal Infirmary of Edinburgh. However only at EMMS' LMMMTI could students practice being a doctor in a missionary environment so this institution exerted considerable influence.

Burns Thomson, Superintendent at the Cowgate, influenced his nephew Dr. Thomson Crabbe towards similar work. Crabbe opened a mission dispensary in Aberdeen, and latterly trained medical and missionary students there. He then worked briefly in the Edinburgh dispensary as Burns Thomson's health failed. In 1876 he moved to Birmingham serving there as a medical missionary for 23 years.¹⁶⁹

Proponents saw combined spiritual and medical healing as a holistic or, 'Medico-Evangelistic experience' and viewed it positively.¹⁷⁰ A century later theologians like medical doctor Bob Lambourne (d.1972) also embraced holistic healing. He rejected medicine's dualism of the spiritual mind and soul and the body regulated by the clinician, and theology's dualism of soul as essence and body as fleshly prison. Lambourne saw healing from the unified Hebraic view of the person in contrast to the Greek Neo-Platonist dichotomy of body and soul that influenced much Western thought.¹⁷¹ Opponents Sidney and Beatrice Webb criticised the medico-evangelistic approach as 'mixing up medicine with religion' and offering the bait of 'cheap doctoring' to draw people to religious teaching.¹⁷² Medical missionary periodicals publicised the holistic approach. Burns Thomson and Millar addressed religious and medical meetings nationwide including the Mildmay Conference. Medical missionary dispensaries like Crabbe's arose modelled on the Cowgate.

¹⁶⁹ Butler, Annie, *R. W. Thomson Crabbe FRCSE Medical Missionary*, (London, Paternoster, 1899) p.14 & p.18.

¹⁷⁰ EMMS, Forty-sixth Annual Report p.21. In EMMS Annual Reports, EMMS Archives A1 004).

¹⁷¹ Lambourne, R., "Wholeness, Community and Worship" in *Explorations in Health and Salvation – A Selection of Papers by Bob Lambourne*, Wilson, M. (Ed), Birmingham, Univ, Birmingham, 1983) p.14.

¹⁷² Webb, Sidney & Beatrice, *The State and the Doctor*, submitted in evidence to The Royal Commission on the Poor Laws 1909, appendix, Vol.III, Qs. 33690, 33691, quoted by Heaseman,

The Mildmay and Keswick Conferences propagated an urgent pre-millennial missionary drive. Mildmay established a hospital in London, and, like Dr. Hudson Taylor (1832-1905) and his *China Inland Mission* (CIM) advocated women's role as pioneer missionaries. EMMS supported male and female doctors to meet the growing demands of missionary societies.

Paterson, the Cowgate Superintendent, died after six months. EMMS graduate Rev. Dr. John Lowe succeeded him. He had served in Travancore and was Superintendent (1871-1892) and EMMS Secretary (1883-1892). His book *Medical Missions, their Place and Power* (1886)¹⁷³ was a thoughtful, landmark contribution to the debate. Simon attributes the impetus for medical mission to the 1860 Liverpool Conference, and to:

“ The famous speech given by John Lowe (1887 p.10) of the Edinburgh Medical Mission (sic) Society – urging ‘the welfare of my brother, his body, his soul, for time, for eternity’ – in 1871 encouraged more Westerners to sail to India.”¹⁷⁴

In 1882 EMMS first black student Jamaican Theophilus Scholes, successfully sought support for his postgraduate training. Despite John Lowe's recommendation Scholes was rejected by the Blantyre Mission on racial grounds.

¹⁷⁵ He later worked in the Congo before moving into less faith based work.

Gradually the numbers of EMMS supported medical students increased:

- 1850s – 4
- 1860s – 13
- 1870s – 29
- 1880s – 52
- 1890s – 65

¹⁷³ Lowe, John, *Medical Missions, their Place and Power* (London, T Fisher Unwin, 1886).

¹⁷⁴ ¹⁷⁴ Simon, Elizabeth B., “Christianity and Nursing in India – a remarkable impact”, *Journal of Christian Nursing*, April-June 2009, Vol.26, No.2, p89-90.

¹⁷⁵ Rennick, A., “The Role of Medical Missionaries in Malawi 1875-1914”, Ph.D thesis, University of Stirling, December 2003, p.183.

This total of 163 doctors reveals that EMMS' was a significant supplier of Victorian medical missionaries. In 1887 Thompson records 33 British and 41 American medical missionaries in China.¹⁷⁶ Jansen observes:

In 1850 40 medical missionaries were serving the foreign mission (Olpp, 1932:130), in 1887 300 were registered and in 1900 650 (EMC 1900:199). By 1923 this number had increased to 1157 medical doctors in foreign mission service (World Missionary Atlas 1925:79).¹⁷⁷

By the dates used by Jansen, EMMS had supported considerable numbers of medical missionary students: 80 (1851-1887), 170 (1851-1900) and 250 (1851-1923). It is not possible to compare Jansen's quoted figures of medical missionaries in post at a given date, and the number EMMS had produced from 1851 up to that date, which will include deaths and retirements. Unfortunately there are no statistics for the number of doctors in post that had had their student fees funded by EMMS at any date. All we can infer to avoid spurious accuracy was that EMMS' contribution to the output of missionary doctors was numerically significant, but probably declining as a proportionate of the total as other societies contributed to the output.

Aspiring women doctors fought gender stereotyping as nurturer or unpaid middle class "Nightingale" charitable lady nurse. Burns Thomson trained female nurses¹⁷⁸ in the Cowgate on his own initiative rather than EMMS'. He spotted his "Bible woman's" aptitude and he trained her and others who like Elizabeth Ramage¹⁷⁹ accompanied Kaloost Vartan to Nazareth (1867).¹⁸⁰

¹⁷⁶ Thompson, J. C. "Statistics", China Medical Missionary Journal, Vol.11. p.30, quoted in Whitmore, Clara B. *A History of the Development of Western Medicine in China*, Ph.D. thesis University of Southern California, 1934, p.172.

¹⁷⁷ Jansen, G, "Medical Missiology: An Undeveloped Discipline Without Disciples. A Retrospective Review", *Exchange*, Vol. 24 (3) p.225.[Olpp, G. "Medical Missions and their International Relations", *Modern Medical Missions*, Braun, K. W., Ed. Burlington: Lutheran Literary Board. EMC, "Report of the Ecumenical Missionary Conference on Foreign Mission", (New York, American Tract Society, 1900). Beach, H. P. and Fahs,, C. H., *World Missionary Atlas*, (Institute of Social and Religious Research, New York, 1925)].

¹⁷⁸ Billings, Malcolm, Vartan of Nazareth Missionary and Pioneer in the Nineteenth Century Middle East, (London, Paul Holberton, 2012) p.83.

¹⁷⁹ Burns Thomson, W., *W. Burns Thomson – Reminiscences of Medical Missionary Work*, (London, Hodder, 1895) p.180.

¹⁸⁰ EMMS Twenty-fourth Report 1867, p.12. In EMMS Reports 1858-1871(EMMS Archive A1 003).

The Edinburgh “Surgeons’ Hall Riot” (1870) enlivened the women’s medical education campaign. Despite having matriculated at the University of Edinburgh the ‘Edinburgh Seven’¹⁸¹ were debarred from University anatomy classes. However the Royal College of Surgeons of Edinburgh (RCSE) was open-minded and their Surgeons Hall lecturers opened classes to them:

... but to their everlasting credit, Drs. Peter David Handyside, Patrick Heron Watson and Joe Bell, whose name appears almost nowhere in the fray, taught anatomy (Handyside) and surgery to the men and women together.

¹⁸²

On 18 November 1870 male medical students impeded their attendance at a competitive examination in Surgeons’ Hall, with jostling, mudslinging and by introducing a sheep into the exam room. Nevertheless the women persevered.

After the examination Joe Bell and Dr Handyside suggested that the young ladies left singly by the back door.¹⁸³

This was the same Dr. Handyside of EMMS and the Cowgate Dispensary. Joseph Bell (1837-1911) was a surgeon, an EMMS director, strangely unenthusiastic about female nurses¹⁸⁴ and the prototype for Sherlock Holmes.¹⁸⁵

EMMS advertised for women missionary medical students (1889), but insisted they study at Elsie Inglis’ cheaper Chambers Street School rather than Jex-Blake’s *Edinburgh School of Medicine for Women*.¹⁸⁶ Change accelerated. Women set up their own missionary societies like the *Women’s Foreign Missionary Society* (WFMS), not answerable to male boards. Dr. Clara Swain (1834-1910) arrived in

¹⁸¹ Isabelle Thorne, Edith Pechey, Helen Evans, Matilda Chaplin, Sophia Jex-Blake, Mary Anderson, Emily Bovell.

¹⁸² Liebow, Ely, M., *Dr Joe Bell- Model for Sherlock Holmes*, (Bowling Green, Ohio, BG Univ. Popular Press, 1982) p.97.

¹⁸³ Liebow, Ely, *Dr Joe Bell- Model for Sherlock Holmes*, (Bowling Green, Ohio, BG Univ. Popular Press, 1982) p.99.

¹⁸⁴ Saxby, Jessie M. E., *Joseph Bell – An appreciation by an Old Friend*, (Edinburgh & London, Oliphant, Anderson & Ferrier, 1913) p.59.

¹⁸⁵ Liebow, Ely, *Dr. Joe Bell – Model for Sherlock Holmes*, (Bowling Green, Bowling Green State U.P., 1982).

¹⁸⁶ Somerville, J.M. Dr. Sophia Jex-Blake and the Edinburgh School of Medicine for Women”, *Journal of the Royal College of Physicians Edinburgh*. 2005, Vol.36, p.265.

Bareilly, India (1869) with the WFMS of the U.S. Methodist Episcopal Church¹⁸⁷ to work with secluded “Zenana”¹⁸⁸ women.¹⁸⁹ William Elmslie of Kashmir advocated women doctors to reach India’s secluded Muslim and high caste Hindu women.¹⁹⁰ Duff referring to Elmslie’s writing, wrote to Lowe and EMMS advocating medical women for Zenana work. Elmslie himself had already contacted Dr. Coldstream on the issue.¹⁹¹ Campaigner for women doctors, Sophia Jex-Blake also identified Zenana work as an opportunity for them in *Medical Women* (1877).¹⁹² By 1890 EMMS had reached the same conclusion and:

.... We have resolved to provide the same financial assistance to Ladies, in the course of their preparation for Medical Missionary service, as we give to our young men:¹⁹³

Dr. Hudson Taylor (1832-1905) also encouraged single women workers for the CIM and at the Mildmay Conference (1878)“...the support for women missionaries was strong, ...”.¹⁹⁴ Medical misogyny declined. In the EMMS *Quarterly* an editorial appeared:

Female Medical Missions – We are deeply impressed with the conviction, that shortly there will be great demand for fully qualified Lady Medical Missionaries. Even now we have several applications for such agents, and we feel sure that this demand will increase. A sphere of no ordinary usefulness stands invitingly open, in India, China and almost everywhere in the east, for devoted and skilful service, in this increasingly important of Missionary Work.¹⁹⁵

¹⁸⁷ The Women’s Foreign Missionary Society of the Methodist Episcopal Church.

¹⁸⁸ “Zenana” refers to secluded separate women’s quarters sometimes called a harem in other cultures.

¹⁸⁹ Fitzgerald, Rosemary, “A ‘Peculiar and Exceptional Measure’: the Call for Women Medical Missionaries for India in the Later Nineteenth Century”, in Bickers R. A. & Seton R., *Missionary Encounters: Sources and Issues*. (Richmond, Curzon Press, 1996), p.185.

¹⁹⁰ Elmslie, William J., On Female Medical Missions for India, in *The Female Medical Evangelist*, 1873, Vol.1 (5) p.173.

¹⁹¹ Lowe, John, *Medical Missions as illustrated by some letters and notices of the late Dr Elmslie*, (EMMS, Edinburgh, 1874) p.179-182.

¹⁹² Jex-Blake, Sophia “Medical Women” in *Nineteenth Century – a Quarterly Review*, Nov. 1877, 129, p. 701.

¹⁹³ EMMS Forty-Seventh Report 1890, Pp.21-22. (EMMS Archive A1 004).

¹⁹⁴ Williams, P. “‘The Missing Link’: in The Recruitment of Women Missionaries in Some English Evangelical Missionary Societies in the Nineteenth Century”, in Bowie, F. Kirkwood, D., Ardenor, S. (eds), *Women and Missions: Past and Present. Anthropological and Historical Perspectives*, (Oxford, Berg, 1993) p.51.

¹⁹⁵ EMMS *Quarterly* 1887-1891 p.217.

An article “The Needs of China For Women Medical Missionaries” (1891) by Rev. James Sadler (LMS) appeared in the *Quarterly*. After twenty-five years in China he advocated training Chinese lady doctors and asked EMMS to prepare British women doctors as trainers.¹⁹⁶ Before long the same EMMS *Quarterly* reported:

First Lady Missionary of the Society – It is gratifying to state that our first lady student Miss Dr. Montgomery has taken her diploma of LRCP&S and has been appointed by the Irish Presbyterian Church to work in India.¹⁹⁷

Shortly after Miss Lillie Cousins¹⁹⁸ LRCS MD (grad. 1895), went to Hangchow with LMS. She appears in a group photograph with Eleanor Montgomery (EMMS g.1895).¹⁹⁹ Much later three EMMS women doctors joined the ZBMMS (1924 - 1928).²⁰⁰

Women were substantial fundraisers through EMMS’ *Ladies’ Auxiliary Committee*, which appeared in the 1846 EMMS Annual Report.²⁰¹ The first woman in EMMS’ secretariat was Organising Secretary Jane MacGregor (1901),²⁰² supporting Messrs Sargood and Bell. It was not until 1918, twenty-three years after Dr. Montgomery went to India that EMMS appointed women Board Directors:

The Board recently decided to invite the co-operation of ladies, and recommend the appointment of Dr. Muriel Gavin, Dr. Tina Blaikie, and Mrs Dowden.²⁰³

LMS had appointed women to their board twenty-seven years earlier.²⁰⁴ Legislative changes in 1918²⁰⁵ and women’s contributions to the war effort probably made EMMS’ move inevitable. Their tardiness may have reflected conservative theology within sending churches like Charlotte Baptist Chapel,

¹⁹⁶ EMMS *Quarterly* 1887-1891- p383-384.

¹⁹⁷ EMMS *Quarterly* May 1891-Nov 1895 p.90.

¹⁹⁸ She seems to have married and become Dr. Stewart.

¹⁹⁹ EMMS *Quarterly* May 1891 – Nov. 1895. p145.

²⁰⁰ Nicholson, Barbara (1924) Lucknow, Mary A. McGill (1926) Jaipur, Alice Hodge (1928) Lucknow. Zenana Bible and Medical Missionary Society. (EMMS manuscript *Index of Students*; EMMS archives).

²⁰¹ EMMS Fourth Annual Report for the year 1845.

²⁰² EMMS Fifty Eighth Report for y/e 11 November 1901.

²⁰³ EMMS 75th Annual Report Y/E 11 November 1918, p.6.

²⁰⁴ Ingram, Hilary, *Gender Professionalism and Power: the rise of the single female medical missionary in Britain and South Africa, 1875-1925*, (MA thesis McGill University, Montreal, July 2007) p.42.

²⁰⁵ The Representation of the People Act 1918, 7 & 8 George V, c.64.

Edinburgh that between 1808-1958 had 18 EMMS students attending. In that period it sent out 58 female and 44 male missionaries, but had no female elders.²⁰⁶

Women eventually comprised about one third of missionary doctors, and an unknown number of the nurses. The next section examines how these pioneer doctors taught medical auxiliaries, founded of indigenous nursing, pharmacy and medical professions, major teaching hospitals and purveyed Western Scientific culture.²⁰⁷

²⁰⁶ Balfour, I.L.S, *Revival in Rose Street – Charlotte Baptist Chapel 1808-2008*, (Edinburgh, Rutherford House, 2007) p. 312.

²⁰⁷ Grundmann, C., "The Contribution of Medical Missions: The Intercultural Transfer of Standards and Values", *Academic Medicine*, December 1991, Vol.66, No. 12, p.731

5. Teachers and Taught

Teaching was a phase in missionary medicine, not a specific period. Most pioneer missionary doctors went out alone, or with a spouse. They needed trained local assistants immediately so they could practice efficiently. Attuned to local culture the local medical auxiliaries and evangelists could communicate gospel teaching and western medical practice to their compatriots better than the missionaries.²⁰⁸

EMMS' "inspiration" Peter Parker trained three Chinese assistants within three years of arrival. Atsung accompanied him to USA (1840), another Wong Fun, became EMMS' second graduate from the University of Edinburgh, and Wang Asui served for twelve years as Parker's Chief Pharmacist.²⁰⁹ Unusually, Vartan took Elizabeth Ramage, a Burns Thomson trained nurse, to Nazareth (1867).

As medical missions expanded with local demand, so local assistants were rapidly trained in bandaging, dressing wounds and basic dispensing.²¹⁰ Serious cases needed in-patient care often in basic accommodation²¹¹ or the doctor's home nursed by his wife. More inpatients required more beds, an operating room, and locally trained nurses. These larger specialist buildings were proper hospitals and often provided peripatetic medical services around local villages. This required a second doctor to cover absences. Some dispensaries were the seeds of substantial institutions with nurses, cleaners, cooks, laundry staff, catechists and Bible women serving patients' spiritual and medical needs. EMMS' graduates Christie (Mukden) and Main (Hangchow) developed their work in this way.

Three main factors drove this institutionalisation. Firstly human needs stirred the missionaries' compassion. Secondly professional integrity drove doctors to

²⁰⁸ Lowe, John, *Medical Missions, their Place and Power* (London, T Fisher Unwin, 1886), p48.

²⁰⁹ Wong, Chimin K., and Lien-The Wu, *History of Chinese Medicine*, (Tientsin, Tientsin Press Ltd., 1932) p.610.

²¹⁰ Billings, Malcolm, *Vartan of Nazareth Missionary and Pioneer in the Nineteenth Century Middle East*, (London, Paul Holberton, 2012) p.92.

²¹¹ Lowe, John, *Medical Missions as illustrated by some letters and notices of the late Dr Elmslie*, (EMMS, Edinburgh, 1874) p.31.

provide the best medical care they could achieve. Thirdly in-patients exposed to sustained Christian teaching were more likely to convert than short-term outpatients. Although appreciative of their treatment and teaching many outpatients returned to the local culture and were lost to the mission. Kingston de Gruchè, refers to EMMS' Duncan Main's observations:

There is no pulpit so influential as a hospital ward, and no pew where the hearer is so receptive as a hospital bed." wrote Dr. Main. "In the past medical mission was looked upon as a means to an end. A bell to bring people to church! Now it is an integral part of the churches' mission fulfilling its work by winning men to Christ by the power of the Gospel.²¹²

European nurses, inspired by Nightingale's reforms often entered missionary service. Soon doctors at Nazareth began four year training for local nurses, midwives and other specialists. One local trainee, Salim Abboud was the hospital pharmacist for many years.²¹³

Patently, sending countries could never train and support the numbers of medical professionals needed by the populations where EMMS graduates served. Missionary societies regarded medical missions with differing levels of enthusiasm, financial support and theological commitment. EMMS itself supported only two hospitals, The *Victoria* in Damascus (1898-1957) and the *Nazareth Hospital* (1871-2002). However its graduates helped develop several major hospitals with medical and nursing teaching schools, which continued to serve in 2011.

Dugald Christie (1855-1936) (EMMS g.1881) founded a hospital in Mukden, Manchuria.²¹⁴ On arrival (1883) he learnt the language, etiquette and Chinese medicine. His public cataract operations gained attention and he housed patients in a poor building (1885) before acquiring a better alternative (1887). Christie and the hospital supported Mukden's authorities during floods (1888), and the subsequent typhoid and cholera. By 1893 it had 539 inpatients, over 20,000

²¹² Gruchè, Kingston de, *Dr. D Duncan Main of Hangchow – Who is known in China as Dr. Apricot of Heaven Below*, (London, Marshal Morgan and Scott, 1930) p.160.

²¹³ Billings, Malcolm, *Vartan of Nazareth: Missionary and Medical Pioneer in the Nineteenth - Century Middle East*, (London, Holberton, 2012), p.92.

²¹⁴ *The British Medical Journal*, Vol. 2, No. 3962 (Dec. 12, 1936), pp. 1238-1239.

outpatients and Christie performed 954 operations.²¹⁵ In the Sino-Japanese War (1894-1895) he tended casualties. Between 1883 -1888 he was joined by four Scottish women doctors,²¹⁶ Mary Horner, Katherine Stobie (nee Paton), Ethel Starmer, and Isabella Aitken (EMMS g.1896).²¹⁷ He taught medical students, but the Boxer Rebellion (1900) forced missionaries to flee and mission hospitals were destroyed. Rebuilding started (c.1903) when Drs. Edward and Katherine Constance Young (nee Sampson) (EMMS g.1899) joined to work at Ashiho near the Russian Border.²¹⁸ The Russian- Japanese War flared (1904-1905) producing more casualties. Pneumonic plague arrived (1910-1911) with 100% mortality so the doctors undertook public health work, quarantine and burial. Christie, Starmer and Horner established a medical school with a new building (1912) and a five-year Scottish medical school syllabus. This became recognised by Edinburgh University as qualifying for their postgraduate studies (1934). In 1923 a nursing school started at Mukden, which produced over 300 midwives and nurses (1923-1950).²¹⁹ Christie, who eschewed fees was called the “free-healing doctor” and he encouraged teaching in Chinese.²²⁰ He received Chinese awards, the Royal Red Cross and became Commander of St. Michael and St. George.²²¹ EMMS graduate, Ella Ferrier Pringle (1876-1963), also worked in Mukden (1909-1916) and is one of only three women celebrated in the Royal College of Physicians (Edinburgh) web-site gallery of fame.²²² After Manchuria she served Scotland with distinction in public health and maternal and childcare and was elected FRCPE in 1925.²²³

Dr. Duncan Main (EMMS g. 1881) (1881-1926) opened a maternity hospital and midwifery school (1906) in Hangchow. He taught medical students from 1882

²¹⁵ Tsai, H. H., Dugald Christie CMG FRCS FRCP Edin. Scottish Medical Pioneer in Manchuria (1883-1923), *Scottish Medical Journal* 1989; 34: 443-444.

²¹⁶ Tsai, H. H. Scottish Women Medical Pioneers 1894-1912, *Scottish Medical Journal* 1992: 37: p.56-59

²¹⁷ Mary Horner LRCPE, LRCSE, LFPS Glas., Katherine Stobie (nee Paton) LRCPE LRCPE LFPS Glas, Isabella Aitken LRCPE LRCSE LFPS Glas and Ethel Starmer MB CM Edin.

²¹⁸ Tsai, H. H. Scottish Women Medical Pioneers: Manchuria 1894-1912, *Scottish Medical Journal* 1992: 37: p.56.

²¹⁹ Crawford, D. S., *Journal of the Royal College of Physicians Edinburgh*, 2006, 36, p.180.

²²⁰ Wotherspoon, Ian, “Dugald Christie - a Scottish Christian in a Changing China”, *Sine*, September 2006, pp1-2.

²²¹ Gruchè, Kingston de, *Dr. D Duncan Main of Hangchow – Who is known in China as Dr. Apricot of Heaven Below*, (London, Marshal Morgan and Scott, (1930) p.74.

²²² <http://www.rcpe.ac.uk/heritage/biographies>

²²³ *The British Medical Journal*, Vol.2, No. 5358, (14 July 1963) p.689-690.

and after 42 years opened a new medical college (1924) costing £14000.²²⁴ This became the Second Affiliated Hospital Zhejiang University School of Medicine. Main's role was acknowledged nearly a century later in an exchange between President Obama and the college president Wang Jian'an who sent the President a photograph of Main in Chinese dress bowing to a young patient.²²⁵

The introduction of western medicine, its scientific method, its hospitals and medical schools, into Chinese medical culture is attributable to Protestant missionaries. Seeing themselves as guests in China, EMMS' missionaries like Christie, Main, Aitken and Young prepared young Chinese professionals to take over,²²⁶ although some missionaries like Elizabeth Reifsnyder (1858-1922) of the Women's' Union Mission preferred not to train Chinese successors.²²⁷ Later, American philanthropic bodies like the Rockefeller Foundation invested in these institutions and the British missionary societies' role declined. Helped by EMMS' graduates the missions left an enduring legacy for the nationalist and Communist authorities' health services.

David Paterson (EMMS g. 1851) went to Madras (1856) and started a dispensary. Partnering with the *Madras Medical Missionary Committee* redundant American mission premises were adapted for a hospital and training institution. Between 1866-1874 it offered a four-year course in medical evangelism.²²⁸

Colin Valentine (EMMS g.1861) started in Agra with the *United Presbyterian Mission Board* (UPMB). He established the *Agra Medical Missionary Training Institution* (AMMTI) (1881) for evangelistic training in partnership with the government *Agra Medical College* for medical education. Later the *Indian Medical Mission Association* agreed AMMTI's closure so thereafter women trained at

²²⁴ Gruchè, Kingston de, *Dr. D Duncan Main of Hangchow – Who is known in China as Dr. Apricot of Heaven Below*, (London, Marshal Morgan and Scott, (1930) p.193-200.

²²⁵ Zhang, Cindy, "Obama Signed Letter of Gratitude to a Zhejiang hospital set up by a Missionary", *China Christian Daily*, 11 January 2017.

²²⁶ Gruchè, Kingston de, *Dr. D Duncan Main of Hangchow – Who is known in China as Dr. Apricot of Heaven Below*, (London, Marshal Morgan and Scott, (1930) p.99.

²²⁷ Whitmore, Clara B. *A History of the Development of Western Medicine in China*, Ph.D. thesis University of Southern California, 1934, p.176.

²²⁸ Wilkinson, John, *The Coogate Doctors*, (Edinburgh, EMMS, 1991), p.29.

Ludhiana and men at Miraj. EMMS continued providing bursaries, and uniquely Edinburgh University appointed Valentine honorary LL.D for his work.²²⁹

When Japan opened up EMMS responded. Theobald Palm (EMMS g. 1873) arrived (1874) to work at Niigata, Echigo Province. After five years he established a twelve-bed hospital, which unfortunately burnt down (1880). EMMS nurse Fanny Shaw joined him (1882).²³⁰ The hospital was rebuilt and handed over to the ABCFM together with a viable local church when he left.²³¹ Palm also illuminated the relationship between sunlight and rickets.²³² He wrote: "Rickets is essentially a form of malnutrition. ... sunlight is essential to the healthy nutrition of growing animals and is the most important element in the aetiology of rickets."²³³ Ekpe attributes Palm's lack of contemporary recognition to his lack of experimental proof that sunlight therapy would help,²³⁴ so Kurt Huldchinsky²³⁵ gained credit for this association although Chesney acknowledges him for initiating the association with sunlight.²³⁶

EMMS trained doctors, Samuel Fenn (g. 1886) and C. F. A. Moss (g. 1888), worked in Antananarivo, Madagascar, initially supported by Burns Thomson and then *Friends Foreign Missions* (FFM). They established a five-year medical course for Malagasy students at the *Medical Missionary Academy* (1887-1895). Notwithstanding a prohibition on dissection and post mortems twenty graduated

²²⁹ Wilkinson, John, *The Coogate Doctors*, (Edinburgh, EMMS, 1991), p.31.

²³⁰ Cozad, Justus, L. *Echigo Darkest Japan – the Way Out*, 2nd Ed., Cleveland Ohio, 30 July 1891, pp1-2. (<https://archive.org/stream/echigodarkestjap00amer#page/n1/mode/2up> - Accessed 16 February 2018), p.1.

²³¹ Cozad, Justus, L. *Echigo Darkest Japan – the Way Out*, 2nd Ed., Cleveland Ohio, 30 July 1891, pp1-2. (<https://archive.org/stream/echigodarkestjap00amer#page/n1/mode/2up> - Accessed 16 February 2018) p.7.

²³² Palm, Theobald, A. Letter to the Editor. *Br. Med. J.* 1888, 2, 1247.

²³³ Palm, Theobald., *The Geographical Distribution and Aetiology of Rickets*, *Practitioner*, 1890, Vol II, 270-279; 322-342.

²³⁴ Ekpe, Jadesola, "The chemistry of light: the life and work of Theobald Adrian Palm (1848-1928)", *Journal of Medical Biography*, 2009, Vol. 17, pp.155-160.

²³⁵ Huldchinsky, K., "Heilung von Rachitis durch kunstliche Hohensohnne, *DMW-Deutsche Medizinische Wochenschrift* 1919.

²³⁶ Chesney, R. W. "Theobald Palm and His Remarkable Observation: How the Sunshine Vitamin Came to be Recognised" *Nutrients* 2012, 4, 42-51.

early on, with fifty in training. Two graduates built small country hospitals and others established urban private practices.²³⁷

Visionary women established women's missionary societies as ladies entered medicine. Opportunities were seized and the catch phrase "Woman's work for woman" expressed concern for evangelising women overseas. Drs. Clara Swain (India, 1870) and Lucinda Coombs (China, 1873) were the first female missionary doctors.²³⁸ Within two years Coombs opened a hospital.²³⁹ EMMS *Quarterly* 1885 welcomed the *North India Medical School for Christian Women* (Ludhiana). After a report by Prof. W. Greenfield about training females as medical assistants, nurses and midwives, EMMS passed a sympathetic resolution of approval but without finance.²⁴⁰ Many women doctors joined the Zenana ministries including somewhat later three EMMS graduates who joined ZBMMS.²⁴¹

Hospitals needed local doctors and by 1877 there were reportedly thirty medical students training in China,²⁴² and by the 1890s mission medical schools were producing significant numbers of indigenous doctors.²⁴³ The mission hospitals and medical schools' became a major presence in missions and required substantial resources. A high point in medical missions was the China Centenary Conference (1907) in Shanghai. Dugald Christie led the Medical Missions Committee and Duncan Main was a member.²⁴⁴ Conference delegates were confident of the progress of Christian civilization epitomised by the Western World. The flow of history was bringing China the good news of Christ's Kingdom and his atoning death for sin, the fruits of education, scientific healthcare and

²³⁷ EMMS *Quarterly* May 1891-Nov 1895 p.99-100.

²³⁸ Wong, Chimin K., and Lien-The Wu, *History of Chinese Medicine*, (Tientsin, Tientsin Press Ltd., 1932) p.616.

²³⁹ Balme, Harold, *China and Modern Medicine – A Study in Medical Missionary Development*, (London, Missionary Education, 1921) p.57.

²⁴⁰ EMMS *Quarterly* 1885 p.110-112.

²⁴¹ Barbara Nicholson (grad.1924) Lucknow., Mary McGill Grad.1926) Jampur, Alice Hodge (grad.1928) Lucknow.

²⁴² Wong, Chimin K., and Lien-The Wu, *History of Chinese Medicine*, (Tientsin, Tientsin Press Ltd., 1932) p.617.

²⁴³ Robert, Dana L., *Christian Mission – How Christianity became a World Religion*, (Oxford, Wiley Blackwell, 2009), p.132-133.

²⁴⁴ Centenary Conference Committee, *RECORDS – China Centenary Missionary Conference, April 25 - 8 May 1907*, (Shanghai, CCC, 1907).

social reform.²⁴⁵ 1170 missionary delegates attended but Yao identifies less than ten Chinese delegates.²⁴⁶ No women served on the clerically dominated General or Executive Committees but there at least two, Drs. Niles and Reifsnyder on the Medical Work Committee²⁴⁷ and there were many female delegates.

Like the Edinburgh Missionary Conference (1910), the Shanghai Conference was auspiciously timed. The tensions between Protestant liberal and conservative theologies were not manifest. Anxieties about social action eclipsing evangelism were dormant and moderates and conservatives accepted the efficacy of medical missions. Chinese outbursts of anti-foreigner feeling had ebbed and the Qing dynasty viewed missions and western science positively. Indigenous church numbers had grown. At 1905 China's medical missions reported 106 hospitals, 241 dispensaries, and 300 doctors of whom 93 were women.²⁴⁸

EMMS graduates were influential at Shanghai 1907. Dugald Christie tabled twelve resolutions on medical work.²⁴⁹ Despite major investments in medical missions in *Resolution 1*, he emphasised its role as "central to" not an "adjunct to" missions. In *Resolution 2*, echoing John Lowe²⁵⁰ EMMS vice-President Sir Alexander Simpson strenuously supported the solemn commissioning of missionary doctors at home. In *Resolution 6*, Main emphasised in-patient work for effective evangelism. In *Resolution 7*, Rev. Romig sought recognition of Chinese merchants who funded medical missions including MMSA. At *Resolution 9* Dr. Wherry of APM, successfully sought the additional words "and women" on behalf of two anonymous ladies. Crucially for the establishment of indigenous medical and nursing professions were *Resolution 9* – to found medical schools, and *Resolution 10* to dedicate suitable medical missionaries to translate and publish medical texts, and allot time

²⁴⁵ Yao, Kevin Xiyi, "At the Turn of the Century: A Study of the China Centenary Missionary Conference of 1907" *International Bulletin of Missionary Research*, Vol.32, No. 2, p.66.

²⁴⁶ Yao, Kevin Xiyi, "At the Turn of the Century: A Study of the China Centenary Missionary Conference of 1907" *International Bulletin of Missionary Research*, Vol.32, No. 2, p.65.

²⁴⁷ Dr Mary W. Niles (CMS Hangchow); Dr Elizabeth Reifsnyder (WUM Shanghai); Centenary Conference Committee, *RECORDS – China Centenary Missionary Conference, April 25 - 8 May 1907*, (Shanghai, CCC, 1907). p.xv.

²⁴⁸ Centenary Conference Committee, *RECORDS – China Centenary Missionary Conference, April 25 - 8 May 1907*, (Shanghai, CCC, 1907). Pp.770-783.

²⁴⁹ Centenary Conference Committee, *RECORDS – China Centenary Missionary Conference, April 25 - 8 May 1907*, (Shanghai, CCC, 1907). Pp.625-626.

²⁵⁰ Lowe, John, *Medical Missions, their Place and Power* (London, T Fisher Unwin, 1886), p34.

for medical school lecturers to do it. These resolutions were agreed, and became the basis for a lasting legacy of missionary medical and nursing schools for the Chinese authorities to adopt in the 1940s. Other institutions included, *The China Medical Missionary Association (CMMA)*, which was founded in Shanghai (1887) and *The China Medical Missionary Journal* (1888). These later became the *Chinese Medical Association* and the *Chinese Medical Journal*. Appendix 3 sets out the resolutions of the conference in full.

Elizabeth Simon noted that in 1939-1945 90% of Indian nurses came from the Christian community of which 80% were trained in mission hospitals.²⁵¹ By 2009 3% of India's population was Christian, yet 30% of nursing graduates were from "Traditional Christian families."²⁵² EMMS graduates left a legacy of professionalism as well as institutions.

Three years later the Edinburgh World Missionary Conference (1910) was similarly optimistic²⁵³ about the future of Protestant world mission. 1,215 delegates attended - British (509), 491 American (491) Asian (18) and one African.²⁵⁴ Seeking parity of esteem, V. S. Azariah (1875-1945) of India pleaded for love and friendship,²⁵⁵ and Cheng Jingyi (1881-1939) looked forward to a united non-denominational Chinese church.²⁵⁶ Thus the conference could envisage post colonial indigenous churches demonstrating Henry Venn's Three Selves – "self-supporting, self-governing and self extending".²⁵⁷ Despite the high ratio of Western delegates the prospect of a more equal partnership between missions

²⁵¹ Simon, Elizabeth B., "Christianity and Nursing in India – a remarkable impact", *Journal of Christian Nursing*, April-June 2009, Vol.26, No.2, p92.

²⁵² Simon, Elizabeth B., "Christianity and Nursing in India – a remarkable impact", *Journal of Christian Nursing*, April-June 2009, Vol.26, No.2, p88.

²⁵³ Robert, Dana, L., *Christian Missions- How Christianity Became a World Religion*, (Oxford, Wiley Blackwell, 2009) p.50-53.

²⁵⁴ Stanley, B., "The Church of the Three Selves: A Perspective from the World Missionary Conference, Edinburgh, 1910"; *The Journal of Imperial and Commonwealth History* Vol. 36, No. 3, September 2008, pp. 435

²⁵⁵ Graham, Carol, "The Legacy of V. S. Azariah", *International Bulletin of Missionary Research*, 1985, Vol. 9, No.1, p.17.

²⁵⁶ Ng, Peter Tze Ming, "Cheng Jingyi: Prophet of his Time", *International Bulletin of Missionary Research*, 2012, Vol. 36, No.1, p.14.

²⁵⁷ Shenk, William, "Henry Venn's Instructions to Missionaries", *Missiology an International Review*, Vol. V, No.4, Oct.1977, p.474.

and indigenous churches beckoned, EMMS experience of which is explored in the next section.

However the main event neglected medical missions, so *the Medical Missionary Conference 1910* was held immediately after at the Synod Hall, Castle Street, Edinburgh. Two of its three sessions were chaired by EMMS. Christie, Main and Vartan were there with 130 attendees, 57 from the main conference, and another 46 medical missionaries. Unsurprisingly the conference concluded that medical missions are “...an integral and essential part of the missionary work of the Christian Church.”²⁵⁸ The place of medical missions seemed assured, propelled by visions of progress in partnership with indigenous churches. Indeed, Miss Tay Kwe-in accompanied Dr. and Mrs Main. She had become a midwife in Hangchow and undertook eighteen months further training at Edinburgh’s Deaconess Hospital plus language and music studies. She was a harbinger of the professional and cultural transfer EMMS and the missions hoped for.²⁵⁹

²⁵⁸ Wilkinson, John, *The Coogate Doctors – The history of the Edinburgh Medical Missionary Society*, ((Edinburgh, EMMS, 1991) p.70.

²⁵⁹ Gruchè, Kingston de, *Dr. D Duncan Main of Hangchow – Who is known in China as Dr. Apricot of Heaven Below*, (London, Marshal Morgan and Scott, 1930) p.161-163.

6. Partnership, Enabling and Parity of Esteem.

During the first two phases, EMMS trained doctors for missionary societies, headquartered in and funded from the United Kingdom, from which they directed their overseas stations. By 2010 EMMS' partners were largely autonomous and indigenous Faith Based Organisations (FBOs) like the International Nepal Fellowship (INF), Ekwendeni College of Health Sciences, and Mulanje Mission Hospital, Malawi, and the Emmanuel Hospitals Association (EHA) India. Similarly its sister organisation the Tübingen based German medical missionary society Difäm worked with partners in Chad, Congo and elsewhere. The transformation was that for EMMS and Difäm both their partners and themselves were missionaries reaching out holistically to the needy beyond the church as part of its healing ministry. Having surmounted the cultural linguistic barrier through having an indigenous partner, and having the believer-unbeliever barrier dealt with by culturally sensitised local church workers the paternalist "Teachers and Taught" phase was clearly over.

By the mid twentieth century, decolonised and independent new nations wanted to control their own healthcare. In China missionaries were expelled and in India, visas became harder for missionaries to obtain. Government hospitals competed with the missions. Meanwhile some Christian hospitals and medical schools like Mukden, Vellore, Ludhiana, Peking had outstripped missionary societies' resources to sustain them. Even with local support, patients' fees and American philanthropy they struggled financially.²⁶⁰ Low pay made retention of western and local professional staff in remote locations difficult. Most hospitals with EMMS trained staff were transferred to local management. EMMS itself held only two hospitals, the *Victoria* in Damascus and the *Nazareth Hospital*.

At home, government education grants supported students and EMMS' last graduates went to India, Nazareth and Chogoria, (Kenya) in the mid 1960's. In 1973 EMMS introduced the *Third World Medical Attachment Centre* (3WMAC) to make grants for student electives with mission partners to promote interest in

²⁶⁰ McGilvray, James, C., *The Quest for Health and Wholeness*, (Tübingen, DIFAEM, 1981), p.58.

such work. NHS provision ²⁶¹ made the LMMMTI redundant so it was transferred to the NHS. Hawthornbrae was sold (1997) and the receipts formed a fund, called the Hawthornbrae Trust. In partnership with local government social services this gave grants to Edinburgh patients and their carers who needed a convalescent break.

The missiology of missionary medicine also changed in the twentieth century. Confidence had risen during the nineteenth century, evidenced at the international conferences Liverpool (1860) and London (1878 and 1888)²⁶² and blossomed at the Shanghai Missionary Conference (1907), and the Edinburgh Medical Missionary Conference (1910). Then the Great War (1914-1918) derailed western missionary optimism, as the sight of “Christian” nations mutual slaughter discredited concepts of Western powered Gospel progress in emerging societies. Postmillennial optimism shrivelled. The tangibility of medical outreach sustained it longer than other mission work. At its lowest it became simple benevolence where secular workers, liberals and some conservative Christians could cooperate in medical aid.

The Tambaran Conference (1938) studied healing, health and co-operative working.²⁶³ The highly professionalised hospitals and medical schools retained confidence while evangelistic missions experienced doubt when faced by aggressive secular science. Christian medical missions seemed self evidently valuable until decolonisation in the 1950s and 1960s when they too lost confidence and control. Costs escalated, hospitals sited for evangelism were poorly situated for wider healthcare delivery, staff retention was problematic and state providers competed for patients. ²⁶⁴

²⁶¹ The National Health Service (Scotland) Act 1947 10 & 11 Geo 6. c.27.

²⁶² Jansen, G, “Medical Missiology: An Undeveloped Discipline Without Disciples. A Retrospective Review”, *Exchange*, Vol. 24 (3) p.226.

²⁶³ Jansen, G, “Medical Missiology: An Undeveloped Discipline Without Disciples. A Retrospective Review”, *Exchange*, Vol. 24 (3) p.227.

²⁶⁴ Flessa, S, “Christian Milestones in global health: the declarations of Tübingen”, *Christian Journal for Global Health*, May 2016, Vol.3(1) p.16.

Meanwhile the late nineteenth and early twentieth century controversies had split the Protestant consensus into “conservatives” who had published “The Fundamentals” ²⁶⁵ expressing their propositional beliefs and “liberals” whose less literal in approach to Scripture expressed their faith in social action. For conservatives who had pioneered many reforms, social action became stigmatised as ‘Liberal’ and a distraction from gospel proclamation. This split weakened support for missionary medicine.

EMMS felt these changes. An EMMS team visited the *Victoria Hospital*, Damascus (1954) to assess its viability. Brief paragraphs in the *EMMS Quarterly* (1956-57) hint at onerous legal requirements, and financial pressures. Political tension exacerbated by the Suez Crisis (1956) and ruptured UK-Syrian diplomatic relations compounded difficult working conditions. In-patient work stopped as British nurses returned home. Dispensary work continued ²⁶⁶ until EMMS concluded its work was complete and closed it in 1957 after 62 years service.²⁶⁷ EMMS enjoyed good relations with the Syrian authorities so the building was transferred for use as an eye hospital.²⁶⁸

Thinkers like Harold Balme had envisaged medical missions training local successors and he anticipated primary health work as early as 1924.²⁶⁹ Elmslie (1866) ²⁷⁰ and Hudson (1931) noted two models of care delivery - static doctors visited by patients, and remoter patients visited by doctors. The former - intensive, satisfying curative medical and evangelistic work for a few tended to crowd out brief but vital contacts with the majority. Hudson envisaged prioritising preventive work for the many over curative work for the few.

²⁶⁵ *The Fundamentals: A Testimony To The Truth* (Chicago, Testimony Publishing Company of Chicago, 1910-1915) originally published quarterly in twelve volumes.

²⁶⁶ *EMMS Quarterly* Feb, 1958 Vol XXII No.9 p. 98.

²⁶⁷ Minutes of the Meeting of the Board of Directors, 17 October 1957 which considered the minutes of the Special Damascus Sub-Committee of 02/10/1957 and two letters from D. Thomas.

²⁶⁸ *EMMS Quarterly*, May 1958, Vol. XXII [10] p.109-112.

²⁶⁹ Balme, Harold, “The Trend of Medical Mission Policy in China” *International Review of Missions*, April 1924, 13(2) p.247-257.

²⁷⁰ Lowe, John, *Medical Missions as illustrated by some letters and notices of the late Dr Elmslie*, (EMMS, Edinburgh, 1874) p.61.

The flank of the problem can be strategically turned by transferring the extensive field to the sphere of preventive medicine.²⁷¹

EMMS doctors knew travel time and cost inhibited poorer individuals from visiting the hospital the more remotely they lived. Mission hospitals were often in towns located according to denominational evangelistic priorities. Poor, remote communities remained unreached. Missionary medicine was curative as mission doctors served each patient to the highest standards that the available resources and medical science permitted. They considered the health of whole communities was a lesser priority or a government responsibility.

Livingstone had been unusual. He viewed the slave providing community as a whole and he diagnosed the cure for slavery, poverty and disease as economic development through trade, or as he put it, "Christianity and Commerce".²⁷² Drs. John Grieve and E. R. Mumford (both EMMS g. 1904) had unusual experiences with the Grenfell mission. This organisation built hospitals, schools, sawmills, fought the 'Truck' system and promoted agriculture and trade in Labrador.²⁷³ In Manchuria Christie helped fight the pneumonic plague epidemic (1910-1911). His missionary team vaccinated against smallpox and gave sanitation advice, but most doctors focussed on curing sick individuals rather than disease prevention. Gradually, by the 1950s, missionary and secular doctors began to consider the health of whole communities, think preventively, and use auxiliary health outreach workers.

Meanwhile EMMS retained the *Nazareth Hospital*. Its Superintendent Dr. John Tester OBE left to run EMMS (1969). His replacement, Dr. Bernath, recruited staff from Switzerland, and raised funds from Rotarians, the Swiss Friendship Society, American Palestinians and £1m from USAID.²⁷⁴ The staff accepted low pay as the

²⁷¹ Hudson, E. H. "A Modern Equivalent for Medical Itineration" *International Review of Mission*, 1931, Vol. 20, p.413.

²⁷² Livingstone, David, Cambridge Lecture, 4 December 1857, in *Dr. Livingstone's Cambridge Lectures*, Monk, William, (Ed) (Cambridge, Deighton Bell & Co., 1858), p.1.

²⁷³ Grenfell, W. T., *A Labrador Doctor – the Autobiography of Wifred Thomason Grenfell*, (Boston & New York, Houghton and Mifflin, 1919) (The truck system required employees to purchase from employer owned stores and was frequently exploitative). p195.

²⁷⁴ EMMS, 'Healing Hand' Autumn/Winter 2001 Vol. 58[3] p.12.

hospital provided vital healthcare for Palestinians and trained local nurses and midwives. It became integrated into the Israeli healthcare system,²⁷⁵ but EMMS continued to provide funding.

As the century ended two legal entities became necessary to hold EMMS' Nazareth and UK assets separately, so two companies limited by guarantee with charitable status were created.²⁷⁶ These comprised *EMMS International* (1 Jan. 2002) and *EMMS Nazareth*²⁷⁷ formed shortly after with the approval of Israel's Knesset.

During EMMS support of the *Nazareth Hospital* medical missionary missiology changed. It involved leaving capital intense, high cost hospital curative medicine to governments. Faced with capable secular competition some like John Wilkinson who later led EMMS opined at Limuru, "There are signs that the medical missionary movement is coming to an end."²⁷⁸

Secular medicine moved towards comprehensive healthcare. This included the UK National Health Service (NHS), the Soviet Union's healthcare system and the People's Republic of China's 'Barefoot Doctors' initiative. These contrasting systems took healthcare and preventative work to the whole people.²⁷⁹ Meanwhile Roman Catholic theologians like Gutiérrez,²⁸⁰ Segundo, and Leonardo Boff in Latin America who ministered among extreme poverty, developed "Liberation Theology". This recast elitist theoretical academic theology into an action-orientated movement of and for the poorest. These secular and Catholic ideas affected EMMS' potential future partners directly and thus EMMS indirectly.

²⁷⁵ Billings, Malcolm, *Vartan of Nazareth- Missionary and Medical Pioneer in the nineteenth Century Middle East*, (London, Paul Holberton, 2012), pp.172-175.

²⁷⁶ EMMS, Annual Report 2000. *Healing Hand*, Summer, July 2001 Vol.58 [2] p.7-11.

²⁷⁷ In 2009 it was renamed "The Nazareth Trust".

²⁷⁸ Wilkinson, John, "Why we are here – an Introduction to the Conference" in *Health is Wholeness – The Report of the Limuru Conference on the Healing Ministry of the Church*, February 1970, (Nairobi, PCMA & LIHE, 1970) p.42. and "Making Men Whole: The Theology of Medical Missions" the Maxwell Memorial Lecture for 1989, (London, CMF, 1989), Pp1-17), quoted in Jansen G., "Christian Ministry of Healing on its Way to Year 2000: An Archaeology of Medical Missions", *Missiology; an International Review*, Vol. XXIII, No. 3 July 1995, p.301.

²⁷⁹ Li, Victor H., Politics and Healthcare in China – the Barefoot Doctors, *Stanford Law Review*, Vol.27 (3) February 1975 p.828.

²⁸⁰ Gutiérrez, Gustavo, *A Theology of Liberation*, (London, SCM, 2001). First trans. Caridad Inda & John Eagleson (Maryknoll: Orbis, 1988); 1st ed., Maryknoll: Orbis, 1973). Originally published as *Teología de la liberación: Perspectivas* (Lima: CEP, 1971).

The Church Missionary Society (CMS) had met in London (1948) to discuss and report on the challenges of medical missions.²⁸¹ It anticipated most aspects of what become known as Primary Health Care (PHC). This emphasised preventive medicine, sanitation, employment and housing conditions, food supplies, child welfare, capacity building through nursing, midwifery, and auxiliary training, interdenominational and intersectoral cooperation, outreach beyond the hospital and health data collection.²⁸² PHC prioritised caring for communities and “bottom up” engagement with them about the needs and priorities the people themselves identified. Costly hospital doctor-patient curative work was deprioritised. The *Christian Medical Society* conference at Wheaton College Illinois (1959) attracted 750 delegates to consider postcolonial non-hospital missionary medicine. Change was in the air.

An interesting contrast between EMMS and its closest peer medical missionary society, the *German Institute for Medical Mission* (Difäm) now emerged. The Lutheran World Federation (LWF) and the World Council of Churches (WCC) asked the Difäm to hold a consultation at Tübingen (1964) to discuss the challenges for medical missions in Asia, Africa and Latin America.²⁸³

The consultation’s thinking was simple and important. It said, “The church cannot surrender its responsibility in the field of healing to other agencies”.²⁸⁴ The Church had insights different from, but as important as, secular medicine. Health was not a static equilibrium to be restored but a dynamic involvement in God’s Kingdom. “Health in the Christian understanding is a continuous and victorious encounter with the powers that deny the existence and goodness of God”.²⁸⁵ Called Tübingen (I) its

²⁸¹ CMS, *The Health of the Whole Man – A Statement on C.M.S. Medical Policy 1948*, (London: CMS, 1948).

²⁸² Grundmann, C. H., “The Legacy of Tübingen 1” in *Christian Responses to Health and Development*, Symposium at the German Institute for Medical Mission (DIFAEM), Tübingen, 1 June 2014, “Documentation” p.13.

https://difaem.de/uploads/tx_bfactorpublikationen/Conference_Documentation_01.pdf

²⁸³ Grundmann, C. H., “The Legacy of Tübingen 1 (1964) On the Occasion of its Fiftieth Anniversary”, *International Review of Missions*, April 2015, Vol. 104 (1) p.118.

²⁸⁴ WCC, “The Healing Church. The Tübingen Consultation 1964”, *World Council Studies* 3, (Geneva, WCC, 1965) pp34-35.

²⁸⁵ WCC, “The Healing Church. The Tübingen Consultation 1964”, *World Council Studies* 3, (Geneva, WCC, 1965) pp35-36.

influence was greater than anticipated.²⁸⁶ Difäm convened a second consultation in 1967 on *Health and Salvation* (Tübingen II), which underscored the earlier findings and advocated creating an implementation agency. This produced the *Christian Medical Commission* (CMC) of the WCC (1968-1992), which included Roman Catholics. The CMC developed strong relationships with the World Health Organisation (WHO) and it promoted a reforming medical missions agenda. Subsequent conferences discussed the ideas²⁸⁷ including at Limuru, Nairobi and Coonoor (1967) which emphasized the role of Word and sacrament in healing, a rejection of the material and spiritual duality, and the need for a common understanding of illness between the disciplines of medicine and theology.²⁸⁸

Faith based resources were mapped in Africa through the *African Religious Health Assets Programme* (ARHAP) (2002) and found to be making considerable contributions to healthcare. Unlike Difäm, an affiliate of the WCC,²⁸⁹ EMMS was not involved these missiological developments. However John Wilkinson (EMMS g.1941) future Board Chair and historian²⁹⁰ contributed two papers at Limuru, including “Recent Thought on the Healing Ministry of the Church” discussing the implications of Tübingen I.²⁹¹

Meanwhile conservative evangelicals attended the International Congress on World Evangelization convened by Billy Graham (1918-2018).²⁹² Its 2700

²⁸⁶ Grundmann, Christoffer, “The Legacy of Tübingen 1 (1964) On the Occasion of its Fiftieth Anniversary”, *International Review of Missions*, April 2015, Vol. 104 (1) p.119-120

²⁸⁷ Benn, C., & Senturias, E., “Health, Healing and Wholeness in the Ecumenical Discussion”, *International Review of Mission*, 2001, Vol. XC, Nos. 356-357, p.7.

²⁸⁸ CMC, “The Healing Mission of the Church”, Coonoor Conference 1967, (CMC, Geneva, 1967) – Rev. T. Droege – Central Affirmations of the Coonoor conference – Introduction, pp 1-3.

²⁸⁹ ARHAP, *Report of Workshop 5/6 December 2007*, Christian Health Assoc. of Kenya, Nairobi, report compiler: Anderea Morara. p.iii.

²⁹⁰ Wilkinson, John, *The Coogate Doctors*, (EMMS, Edinburgh 1991).

²⁹¹ Protestant Churches Medical Association & Lutheran Institute of Human Ecology, “Health is Wholeness – the Report of the Limuru Conference” (Feb. 1970), (Nairobi, PCMA & LIHE, 1970), John Wilkinson (Ed), Preface p.1-2, “Why We are Here – an introduction to the Conference, pp38-44. “Recent thought on the Healing Ministry of the Church” pp.74-82) in this paper he discusses Tübingen I.

²⁹² Kirk, J. A., “Lausanne Covenant” in Ferguson S. B. & Wright D. F. (eds), *The New Dictionary of Theology* (Leicester, IVF, 1988) p.376-377.

participants produced the Lausanne Covenant (1974),²⁹³ which in paragraph five said,

.... Here too we express penitence both for our neglect and for having sometimes regarded evangelism and social concern as mutually exclusive.

...²⁹⁴

This attempt to reintegrate the two strands of mission encouraged evangelicals to rediscover their nineteenth century concern for social engagement. Shortly after *Samaritan's Purse* founded *World Medical Mission* (1977) to send short-term volunteer doctors and dentists overseas,²⁹⁵ at a time when EMMS was refocusing on supporting students on electives. FBO *Mercy Ships* was founded in 1978²⁹⁶ to provide ship based medical care to the World's poorest countries. With its HQ in Texas it later operated four more ships. Following service on the *Mercy Ships* Greg Seager co-opted others following the Global Missions Health Conference in Louisville (2006), Kentucky to consider short-term medical missions, eventually setting up the *Centre for Health in Mission* (CHM).²⁹⁷

By 1946 health was seen as a broader concept by the WHO which defined it as: "... a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." ²⁹⁸ By 1978 the WHO *Declaration of the International Conference on Primary Healthcare* at Alma Ata ²⁹⁹ asked governments and aid agencies to adopt PHC principles of universal access to healthcare, equity and socially just healthcare, real community engagement, and cross-sectoral working. While the principles were well-received critics highlighted resource constraints.³⁰⁰ A Rockefeller Foundation conference (1979)

²⁹³ Stott, J. R. W., *The Lausanne Covenant – an exposition and commentary*, (Worldwide Publications, 1975).

²⁹⁴ <https://www.lausanne.org/content/covenant/lausanne-covenant> (Accessed 27 January 2018)

²⁹⁵ <https://www.samaritanspurse.org/what-we-do/world-medical-mission-2/> (Accessed 31 March 2018)

²⁹⁶ <https://www.mercyships.org.uk> (Accessed 1 April 2018).

²⁹⁷ Health in Mission, <https://centerforhim.org> (Accessed 1 April 2018).

²⁹⁸ World Health Organisation, Official Records of WHO, 1946, No. 2, p.100. (Preamble to the WHO Constitution, International Health Conference, New York, July 1946.

²⁹⁹ http://www.euro.who.int/_data/assets/pdf_file/0009/113877/E93944.pdf. (Accessed 1 February 2018)

³⁰⁰ Walley, J. Lawn Joy E. et al, "Primary Healthcare: making Alma Ata a reality", *Lancet* 13 September 2008, Vol. 372, p.1001.

proposed targeted Selective Primary Health Care (SPHC)³⁰¹ to address resource issues where full PHC was inoperable. GOBI-FFF ³⁰² for example deals with rehydration, immunisation, family planning, food and other needs. Difäm and others debated these issues. The World Bank published *Investing in Health* (1993)³⁰³ but until 2000CE EMMS was less engaged, with PHC.

John Wilkinson had served at Kenya's Chogoria Hospital, which had set up a PHC department in 1971,³⁰⁴ so EMMS was aware of these trends.³⁰⁵ However debates about Christian healing, medical mission or PHC practices were pointless given its responsibility for the *Nazareth Hospital* integrated as it was within Israel's health system. Also the EMMS Board lacked the theological expertise of its early days. Wilkinson exceptionally had a theological degree, but little call to use it at EMMS. While the demerger involved little theological rethinking it forced engagement with practice of PHC.

The reorganisation brought little change to *EMMS Nazareth* which continued supporting the hospital. However *EMMS International* needed rapid, fundamental changes to survive.

With the impending change to the structure of the Society, the Directors concluded that the scope of the operation for EMMS had to be widened and consequently in 1998 set up a working party to investigate links with other charitable organisations operating in India and Nepal concentrating on community and primary care projects.³⁰⁶

Without Nazareth little work remained, so in the late 1990s Executive Director Robin Arnott established three new partnerships with Faith Based Organisations - the *International Nepal Fellowship* (INF), the *Emmanuel Hospitals Association*

³⁰¹ Walsh J. & Warren K. S. "Selective Primary Health Care, an Interim Strategy for Disease Control in Developing Countries" *New England Journal of Medicine*, 1979 Vol. 301, pp.967-974. (Reprinted *Social Science and Medicine* Vol. 14C pp145-163.)

³⁰² GOBI-FFF - **G**rowth monitoring, **O**ral rehydration, **B**reast-feeding, **I**mmunisation, **F**amily Planning, **F**emale Education, **F**ood supplements

³⁰³ The World Bank, *World Development Report – Investing in Health*, (Washington D.C., The World Bank Group, 1993).

³⁰⁴ Jansen, Gerard, "The Tradition of Medical Missions in the Maelstrom of the International Health Arena", *Missiology: An International Review*, Vol. XXVII, No. 3, July 1999, p.385.

³⁰⁵ Wilkinson, John "To Preach and to Heal" Thanksgiving Sermon 150th Anniversary, *Healing Hand*, Autumn 1991/Spring 1992, (Edinburgh, EMMS, 1992) p.9.

³⁰⁶ EMMS, Annual Report, *Healing Hand*, Summer, July 2000, Vol. 57 [2] p.8.

(EHA) and a Malawian project providing baby resuscitation equipment for Ekwendeni Hospital. These partnerships were fundamental for *EMMS International's* next phase. It grew rapidly from 3000 supporters, c. £300,000 p.a. income for one project (Nazareth) in 1998 to 29,000 supporters, over £1m pa income and over 20 projects by 2006.³⁰⁷

EMMS remained pragmatic. After embracing PHC and detaching from the *Nazareth Hospital* it paradoxically merged with EHA (UK) (2004), an Indian FBO, which had nineteen ex-mission hospitals, which needed investment. The name "EMMS International" was retained while operating as "Emmanuel Healthcare".³⁰⁸

EHA's 'Vision' of "Fellowship for transformation through caring," explained that it was more than its hospital buildings. Founded in 1970 as an indigenous Christian health and development agency to serve Northern India's poorest peoples, it took over 13 neglected ex-mission hospitals in impoverished rural areas. By 2004 EHA had 19 hospitals, 26 projects, 4 nurse schools, 2 primary schools, 1500 staff [128 doctors, 450 nurses], 1240 beds, 530,000 patients p.a., 15700 supervised deliveries, 379 villages covered by community health teams, with a catchment area of 3m people. Its budget was around £2m p.a. of which 80% was funded, and 20% came from international sources. It tithed 10% to the poor.³⁰⁹ Its philosophy was to care through: provision of appropriate healthcare, empowering communities through health and development programmes, spiritual ministries and leadership development.³¹⁰ It understood PHC practice and could help EMMS learn. Theologically its *raison d'être* was summarised: "We do this in the name and spirit of Jesus Christ so as to manifest Him through word and deed" practically expressed in the EHA STRATEGIC PLAN 2009 TO 2014 under "Repositioning Our Responses:

³⁰⁷ EMMS, "Robin Arnott Retrospective" *Healing Hand*, Summer 2007 Vol 64[2] p.4-5
 28 Wilson, Michael (ed), *Explorations in Health and Salvation a Selection of Papers by Bob Lambourne*, (University of Birmingham, September 1983.)

³⁰⁸ EMMS, Annual Report, *Healing Hand*, Summer, 2004 Vol 61[2] p. 8.

³⁰⁹ EMMS, *Healing Hand*, Spring 2004 Vol. 61 [1] p.7.

³¹⁰ EMMS, *Healing Hand*, Spring 2004 Vol. 61 [1] p.6.

We want to provide Relevant, *Good Quality and Holistic Healthcare*. We want our projects and institutions to look beyond healthcare provision and explore addressing the *Health and Development needs* of individuals, families and the communities. In all this we want to keep our focus on the *Poor and Marginalized* and want to set up systems of *actively reaching* out to such groups in our communities. We want to see that all people who come into touch with our programmes and institutions *Hear and Experience the Gospel*. In all what we do we want to see that we are *Good Stewards of the Resources* entrusted to us and are Financially Sustainable.³¹¹

Its PHC outreach included the *Madhipura Christian Hospital Community Health and Development Programme*, which worked in child trafficking, livelihood health, disaster preparedness, Dalit empowerment and disaster relief after the Koshi flood (2008).³¹²

Thus EMMS International repositioned itself as a partner in mission based primary healthcare and acquired a similar portfolio of projects to Difäm. Both were committed to PHC amongst the poorest through filling gaps in local healthcare.

As well as evaluating EMMS against its own objectives, and contemporary missiological trends, comparison with Difäm is helpful. Few medical missionary societies have survived during 1841- 2011 but Tübingen based Difäm (f.1906) survived and prospered.³¹³

In 1949 Samuel Müller described Difäm's five objectives as to deepen interest in medical missions, help suitable medical missionary candidates including nurses to qualify, advise German mission societies on medical work, provide short residential courses on tropical health and hygiene, and fifthly to offer medical examinations and treatment for medical missionaries before and after their postings to the tropics.³¹⁴

³¹¹ Emmanuel Hospital Association, *Committed to Care – Annual Report 2008-2009*, p6.

³¹² "Madhipura Christian Hospital Society Annual Report" 2013-2014 p.22

³¹³ (*Deutsches Institut für Ärztliche Mission (Difäm)*)

³¹⁴ Müller, Samuel" A German View of Medical Missions " *International Review of Mission*, July 1949 38 (151) pp.324-329.

The similarities are striking. Both societies were committed to promoting the ideas and realities of medical mission and by 2011 had a similar range of projects. The contrast is that Difäm published many thoughtful theological documents on Christian healing and medical missions on its web site in three languages.³¹⁵ After innovatively pioneering the theological case for medical missions successfully in its early days, EMMS neglected this objective after the Great War.

The LWF and WCC asked Difäm to hold a consultation on medical missions. This produced conclusions known as Tübingen I (1964) followed by Tübingen II (1967). These theological deliberations stimulated missiological thought for two generations. Difäm kept links with theologians like Grundmann and had the doctor and theologian Beate Jakob on its staff. In contrast EMMS neglected high-level innovative theological reflection on Christian healing and medical missions. Such fresh thinking continued in Britain, as evidenced by Bob Lambourne (d.1972) at Birmingham University, Chris Cook at Durham University, and John Swinton³¹⁶ at Aberdeen University. EMMS did not engage with these theologians, or those of the University of Edinburgh to promote new applications of Christian beliefs to healing, medicine, and mission.

Both Difäm and EMMS helped students to qualify as medical missionaries. While Difäm advised German missionary societies on medical missions EMMS was preoccupied with the *Nazareth Hospital*. UK mission societies could consult the Liverpool or London schools of tropical medicine. Difäm had its own hospital in Tübingen with specialist expertise in tropical medicine, which remained active in 2011. EMMS however had lost its LMMMTI in 1952 because the NHS made it redundant. So the Difäm team remained closer to practical missionary medicine in a wider range of environments than EMMS. For example they provided pharmaceuticals to mission organisations and helped develop the *Ecumenical Pharmaceutical Network*, for the competitive procurement of quality drugs in the developing world. However, in the field EMMS and Difäm shared similarities. They

³¹⁵ <https://difaem.de/1/difaem/theological-studies/>

³¹⁶ Swinton, John, *Critical Reflections on Stanley Hauerwas' theology of disability: Disabling Society, Enabling Theology*, (New York, Haworth Pastoral Press, 2005).

both served the neediest and filled gaps in health provision. Both worked in maternal and childcare, HIV/AIDS and in Malawi. Difām had a focus on Africa. EMMS needed to refresh its objectives and vision to realign them with its actual practices.

7. Conclusions

EMMS took time to fulfil its three founding objectives. Only the first, the advocacy of medical missions, was rapidly achieved. EMMS' campaign of essay prizes and publications helped shape opinion to accept³¹⁷ doctors as missionaries.³¹⁸ The second objective of sending aid to medical missions was swiftly, if modestly, accomplished by sending small grants to the China and Syrian medical missions. Only after a decade when resources grew was this achieved convincingly. The third objective, "to render assistance at missionary stations to as many professional agents as the funds ...shall admit of" took longer to achieve. It was not foreseen in 1841 that this might include supplying trained missionary doctors. EMMS failed a request to recruit one for China. In 1848 Dr. Handyside met a requirement to appoint one to Ireland. EMMS then realised that missions increasingly wanted doctors and resolved to sponsor mission minded medical students through their studies in Edinburgh.³¹⁹ From 1861 EMMS provided specialist evangelistic and clinical training through the Cowgate Dispensary, latterly the *Livingstone Memorial Medical Mission Training Institution*.³²⁰ It was ten years after its foundation that the first two candidates, Paterson and Wong Fun, graduated (1851) and eighteen years from its foundation before the next pair, Carney and Henderson (1859), emerged. Thereafter EMMS responded to an increasing demand from missionary societies by supplying fully trained missionary doctors. This was revolutionary and was EMMS' major achievement, eclipsing even its advocacy of medical practitioners in mission. It supplied a demand that it had itself stimulated. Over the next century until the mid 1960s they provided around 440 trained medical missionary doctors. Other medical missionary societies imitated EMMS.

³¹⁷ Lowe, John, *Medical Missions – Their Place and Power*, (London, Fisher & Unwin, 1866) pp. 204-205.

³¹⁸ Lowe, John, *Medical Missions as Illustrated by Some Letters and Notices of the Late Dr. Elmslie*, (EMMS, Edinburgh, 1874) p.vi.

³¹⁹ MB, Ch.B. of the University of Edinburgh and or of the Royal Colleges of Physicians Edinburgh and The Royal College of Surgeons Edinburgh.

³²⁰ Lowe, John, *Medical Missions – Their Place and Power*, (London, Fisher & Unwin, 1866) pp. 210.

Some graduates like Lowe and Wilkinson returned from the mission field to share their practical experience as EMMS board directors. From 1973 EMMS' 3WMACS scheme offered grants to medical students undertaking electives in missionary situations. However few of these returned to enrich the society by serving on its board.

Its first achievement was its strong advocacy of medical missions through 1841-1910. Lowe, Burns Thomson, Christie and Main helped shape the opinions of the missionary societies and their supporters, and having encouraged demand for missionary doctors helped meet it. Thus vicariously through the missionary societies, EMMS played a major part in the inter-war hey-day of medical missions and in the legacy of hospitals, medical and nursing schools, left in China, India and Africa. Its graduates helped create medical and nursing professions, assisted the cultural transfer of western medical science in those societies alongside the other four major medical missionary societies, and helped establish indigenous churches.

After the Great War, EMMS abandoned advocacy and the development of medical missiological thought, beyond reiterating the familiar although sound Scriptural arguments for medical missions in its publications. EMMS did not investigate Scripture to understand its application to the changing late twentieth century context. These theological tasks were left to others like Lambourne,³²¹ Difām and the Tübingen consultees. Perhaps EMMS' interdenominational approach was a factor. Difām with its links to the Lutheran Church was better placed to relate to the WCC and its church based membership. Certainly LWF and WCC asked Difām to undertake the Tübingen consultations and as a WCC affiliate it was better placed for the follow up debates, whereas EMMS lacked such links.

The retention of the *Nazareth Hospital* helped EMMS to survive when other societies left missionary medicine but it delayed EMMS' engagement with PHC. Involvement in this hospital did not offer the wider benefits that Difām's

³²¹ Lambourne, R., *Community Church and Healing*, (London, DLT, 1963) and Wilson, Michael (Ed), *Explorations in Health and Salvation – a selection of papers by Bob Lambourne*, (University of Birmingham, September 1983).

specialised tropical medicine hospital offered in keeping in close touch with clinical practice in developing countries. However after the demerger EMMS engaged swiftly and effectively with PHC ideas and practices through its FBO partners. Together they identified gaps in provision amongst the poorest people in Bihar, Nepal and Malawi and helped fill them with holistic healthcare, HIV/AIDS therapies, maternity and childcare and palliative medicine.³²² This gave EMMS renewed purpose from 2002.

EMMS appeared open minded and progressive in its approaches to interdenominational working, support for non-European students and the promotion of women in missionary medicine although its appointment of women to the board was tardy.

Although the Cowgate was not the first dispensary for the poor,³²³ it was unusual in employing medical students training for mission. This model was imitated throughout the UK and contributed to the health of the nation's poor prior to state provision and it adapted in overseas missions situations. Dispensaries became the pioneer vehicle for delivering medical aid and Christian teaching through teams of missionary doctors and local health workers and evangelists. A few dispensaries became modern major teaching hospitals and nursing schools as at Nazareth, Mukden and Hangchow.

Through their teaching work, and technical writing EMMS graduates helped lay the foundations of the scientific medical and nursing professions in China, India, southern Africa and Madagascar. Some EMMS doctors like Palm and his work on rickets or Isabella Pringle on public health contributed to the wider development of medical practice. In the twenty-first century EMMS supported palliative care training in Nepal and Malawi an echo of the "Teachers and Taught" phase.

³²² EMMS Healing Hand, Autumn/Winter 2010, Vol.67, No.3, p.5. (3rd African Palliative Care Assoc. Conference, Namibia) and Ratcliff, C. Thyle, A. Duomai, s., Manak, M., "Poverty Reduction in India through Palliative Care: A Pilot Project", Indian Journal of Palliative Care, Jan-Mar. 2017, Vol.23 [1] pp. 41-45. Doi: 10.4103/0973-1075.197943

³²³ *The (Royal) Public Dispensary of Edinburgh* (1776-1964) was perhaps the first in Scotland.

Hawthornbrae met a holistic healthcare need for convalescent care for Edinburgh patients. After its sale the Hawthornbrae Trust operated by EMMS pragmatically continued to give grants to patients or carers for respite breaks in partnership with the local authority.

Guided by explicit Christian beliefs, EMMS recovered its earlier flexibility, pragmatism and opportunism. Providing doctors was not an original objective but when asked to do so it met the need and then developed the support and training of missionary doctors to serve worldwide. Evangelical but interdenominational it served many denominational and non-denominational mission societies. In a conservative society it pioneered training of non-European and women doctors. Its directors saw the needy Cowgate poor and persuaded EMMS to meet it. Nobody offered students with evangelistic and clinical training for mission, so flexible as ever it developed the Cowgate as a training institution and then provided a students' residence. Edinburgh needed a convalescent care facility so it opportunistically accepted a bequest and provided it. As mission hospitals became costly it withdrew, albeit slowly, from Nazareth. State funded student grants and NHS provision made the Cowgate redundant so it was closed. Although it identified demand for 60 missionary doctors in 1966,³²⁴ EMMS no longer had a role in supplying them. Instead it gave grants to elective students. After demerging from Nazareth it quickly found work with FBO partners in PHC.

By 2011 its original objectives needed refreshing to capture the spirit of more equal partnership with indigenous faith based organisations with their own professionals and to clarify whether it remained committed to engaging in theological reflection about a distinctively Christian holistic medical mission.

While its founders might be disappointed with the atrophy of EMMS' theological reflections on Christian medical mission to others, they would approve of its pragmatism, flexibility and its fulfilment of its three founding objectives. That fulfilment is epitomised in EMMS more equal partnership with the faith based

³²⁴ EMMS, *Healing Hand*, May 1966, Vol. XXIII, No.1, p.3.

organisations in the receiving countries whose own churches are committed to providing holistic Christian healthcare to their neighbours.

Appendix 1 – References

Ahonen, Risto, A, *Mission in the New Millennium*. (Helsinki, FELM, 2000).

ARHAP, *Report of Workshop 5/6 December 2007*, Christian Health Assoc. of Kenya, Nairobi, report compiler: Anderea Morara.

Balfour, I.L.S, *Revival in Rose Street – Charlotte Baptist Chapel 1808-2008*, (Edinburgh, Rutherford House, 2007).

Balme, Harold, “The Trend of Medical Mission Policy in China” *International Review of Missions*, April 1924, 13(2).

Balme, Harold, *China and Modern Medicine – A Study in Medical Missionary Development*, (London, Missionary Education, 1921).

Bauckham, R. J., “Millenium” in *The New Dictionary of Theology*, Ferguson S. B. & Wright D. F. (Eds) (Leicester, IVP, 1988).

Beach, H. P. and Fahs, C. H., *World Missionary Atlas*, (Institute of Social and Religious Research, New York, 1925).

Benn, C., & Senturias, E., “Health, Healing and Wholeness in the Ecumenical Discussion”, *International Review of Mission*, 2001, Vol. XC, Nos. 356-357.

Billings, Malcolm, *Vartan of Nazareth- Missionary and Medical Pioneer in the Nineteenth Century Middle East*, (London, Paul Holberton, 2012).

Bickers, R A & Seton R., (Eds), *Missionary Encounters: Sources and Issues*, (Richmond, Curzon Press, 1996).

Bosch, D. J., *Transforming Mission – Paradigm Shifts in the Theology of Mission*, (New York, Maryknoll, Orbis, 1995).

Bosch, D. J., “In Search of a New Evangelical Understanding”, in Nichols, Bruce, J., *In Word and Deed*, Lausanne Committee for World Evangelisation, (London, Paternoster, 1985).

Bosch, D. J., *Witness To The World: The Christian Mission in Theological Perspective*, (London, Marshal Morgan & Scott, 1980).

Breitenbach, Esther, “The Influence of the Missionary Movement in Scotland”, in Kenneth R. Ross, *Roots and Fruits: Retrieving Scotland’s Missionary Story*, (Oxford, Regnum, 2014).

Bridges, R.C., “The Sponsorship and Financing of Livingstone’s Last Journey”, *African Historical Studies*, I (1).

British Medical Journal, Vol. 2, No. 3962 (Dec. 12, 1936).

British Medical Journal, Vol.2, No. 5358, (14 July 1963).

Burns Thomson, W., *W. Burns Thomson – Reminiscences of Medical Missionary Work*, (London, Hodder, 1895).

Burroughs Welcome & Co., *A Brief History of Missionary Enterprise in Antient and Modern Times – Lecture Memoranda – World Missionary Conference, Edinburgh 1910*. (London, Burroughs Welcome & Co. 1910) p.293-300.

Butler, Annie, *R. W. Thomson Crabbe FRCSE Medical Missionary*, (London, Paternoster, 1899).

Carey, William, *An Enquiry into the Obligations of Christians to use means for the conversion of the heathens*, (Leicester, 1792).

Centenary Conference Committee, *RECORDS – China Centenary Missionary Conference, April 25 - 8 May 1907*, (Shanghai, CCC, 1907).

Chesney, R. W. "Theobald Palm and His Remarkable Observation: How the Sunshine Vitamin Came to be Recognised", *Nutrients* 2012, 4, 42-51.

Chon, Hikon, *Medical Missions –Theory and Practice*, (Fuller Theological Seminary, Pasadena, 1992) Course papers MM 595, p.21.

Christie, Mrs., *Dugald Christie of Manchuria - Pioneer and Medical Missionary*. (London, James Clarke & Co., 1932).

Chute, A. C., *John Thomas 1757-1801 First Baptist Missionary to Bengal*, (Halifax N.S., Baptist Book and Tract Society, 1893).

Clemo, Elisabeth, *Women Becoming Professionals: British Secular Reformers and Missionaries in Colonial India, 1870-1900*, MA thesis, Univ. of Victoria, 2012.

CMC, "The Healing Mission of the Church", Coonoor Conference 1967, (CMC, Geneva, 1967) – Rev. T. Droege – Central Affirmations of the Coonoor Conference – Introduction, pp. 1-3.

CMS, *The Health of the Whole Man – A Statement on C.M.S. Medical Policy 1948*, (London: CMS, 1948).

Comby, Jean, *How to Understand the History of Christian Mission*, (London, SCM, 1996).

Cozad, Justus, L. *Echigo Darkest Japan – the Way Out*, 2nd Ed., Cleveland Ohio, 30 July 1891.

(<https://archive.org/stream/echigodarkestjap00amer#page/n1/mode/2up> - Accessed 16 February 2018) p.7.

Crawford, D. S., *Journal of the Royal College of Physicians Edinburgh*, 2006, Vol. 36.

Cumming, G. G., *Recollections of Dr. George Graham Cumming* - <http://www.ericliddell.org/dr-george-graham-cumming-a-fellow-student-recounts-his-memories-of-eric-liddell-at-edinburgh-university/> (Accessed 21 February 2018).

Difäm: <https://difaem.de/1/difaem/theological-studies/>

Duff, William, "Scottish Protestant-Trained Medical Missionaries in the Nineteenth Century and the Rise of the Edinburgh Medical Missionary Society." M.Litt. Thesis, University of Glasgow, (2010).

http://encore.lib.gla.ac.uk/iii/encore/record/C_Rb2840329_p.8

Duncan, Graham, "A. The origins and early development of Scottish Presbyterian Missions in South Africa (1824-1865)", *Studia Hist. Ecc.* [Online] 2013 Vol.39 No.1. [Cited 2018-03-06]. Available from

http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S1017-04992013000100006&lng=en&nrm=iso. ISSN 2412-4265.

Edwards, Jonathan, *A Humble Attempt to Promote Explicit Agreement and Visible Union of God's People in Extraordinary Prayer for the Revival of Religion and the Advancement of God's Kingdom on Earth*, (Boston, New England, 1747).

Ekpe, Jadesola, "The chemistry of light: the life and work of Theobald Adrian Palm (1848-1928)", *Journal of Medical Biography*, 2009, Vol. 17.

Elmslie, William J., On Female Medical Missions for India, in *The Female Medical Evangelist*, 1873, Vol.1 (5).

EMC, *Report of the Ecumenical Missionary Conference on Foreign Mission*, (New York, American Tract Society, 1900).

Emmanuel Hospital Association, *Committed to Care – Annual Report 2008-2009*.

EMMS Annual Reports 1841 - 2011. These include the annual accounts and are found in the bound series of EMMS Quarterly Papers (1841 - 1910) (EMMS Archive A1 001 – A1. 004), thereafter within the bound series of EMMS *Quarterly* (1911-1965) and within *The Healing Hand* (1966- to date)

Edinburgh Medical Missionary Society, *Addresses to Medical Students. Delivered at the Instance of the Edinburgh Medical Missionary Society*, (London, A & C Black, 1856).

EMMS, *Healing Hand*, Vol. XXIII No.1 May 1966 magazine publication for supporters with news, and annual reports, replaced *EMMS Quarterly*.

Edinburgh Medical Missionary Society, *Lectures on Medical Missions, Delivered at the Instance of the Edinburgh Medical Missionary Society*, (Edinburgh, Sutherland and Knox), 1849).

EMMS, *Manuscript Registers of Students*. These two records are found within the EMMS archives. They are two neatly kept manuscript registers. The first is a small hardback index book. The second is foolscap sized hardback index book written initially in 1938 and with the archive reference A1.017. Both have been added to over time, and the authors' identities are unclear. The sources of information about the dates students graduated, retired, married or died came from, their destinations, mission societies or when the last entries were made are unclear. The two records agree very closely but not completely. Nevertheless when compared against other sources they seem reliable.

EMMS, (Directors of EMMS), Memorandum, *Aid to Students*, (1851).

EMMS, Minutes of the Meeting of the Board of Directors, 17 October 1957 which considered the minutes of the Special Damascus Sub-Committee of 02/10/1957 and two letters from D. Thomas.

EMMS, *Occasional Paper of the Edinburgh Medical Missionary Society*, No. XII, October 1856. p.7. (RCSE Pamphlets Vol. II. 1828 - Pamphlet 18).

EMMS, *Occasional Papers* – in the EMMS archives these are usually found bound together with other material such as the Annual Reports.

EMMS *Quarterly Paper*, May 1875 No.1 to Feb 1966 Vol. XXII, No.38 thereafter followed by *The Healing Hand*, Vol. XXIII.

Fitzgerald, Rosemary, "A 'Peculiar and Exceptional Measure': the Call for Women Medical Missionaries for India in the Later Nineteenth Century", in Bickers R. A. & Seton R., *Missionary Encounters: Sources and Issues*. (Richmond, Curzon Press, 1996).

Flessa, S, "Christian Milestones in global health: the declarations of Tübingen", *Christian Journal for Global Health*, May 2016, Vol.3 (1).

The Fundamentals: A Testimony To The Truth (Chicago, Testimony Publishing Company of Chicago, 1910-1915) originally published quarterly in twelve volumes.

Gaynor L. & Butterworth J., *God's Needle: How Lily Gaynor brought hope and healing to the land of the witchdoctors*, (Monarch, 2013).

Graham, Carol, "The Legacy of V. S. Azariah", *International Bulletin of Missionary Research*, 1985, Vol. 9, No.1.

Grenfell, W. T., *A Labrador Doctor – the Autobiography of Wifred Thomason Grenfell*, (Boston & New York, Houghton and Mifflin, 1919).

Gruchè, Kingston de, *Dr. D Duncan Main of Hangchow – Who is known in China as Dr. Apricot of Heaven Below*, (London, Marshal Morgan and Scott, 1930).

Grundmann, C. H., “The Legacy of Tübingen 1 (1964) On the Occasion of its Fiftieth Anniversary”, *International Review of Missions*, April 2015, Vol. 104 (1).

Grundmann, C. H., “The Legacy of Tübingen 1” in *Christian Responses to Health and Development*, Symposium at the German Institute for Medical Mission (DIFAEM), Tübingen, 1 June 2014, “Documentation” p.13.
https://difaem.de/uploads/tx_bfactorpublikationen/Conference_Documentation_01.pdf

Grundmann, C. H. The Contribution of Medical Missions: The Intercultural Transfer of Standards and Values”, *Academic Medicine* Volume 66 no.12.

Grundmann, C. H. “Mission and Healing in Historical Perspective”, *International Bulletin of Missionary Research*, Vol. 32 No. 4.

Grundmann, C. H. *Gesandt du heilen! Aufkommen und Entwicklung der ärztlichen Mission im neunzehnten Jahrhundert*. (Tübingen, 1991), (Sent to Heal! Emergence and Development of Medical Missions Missions in the Nineteenth Century”).

Guinness, Henry Grattan, *The Divine Programme of the World’s History* (London, Hodder & Stoughton, 1889).

Gutiérrez, Gustavo, *A Theology of Liberation*, (London, SCM, 2001). First trans. Caridad Inda & John Eagleson (Maryknoll: Orbis, 1988); 1st ed., Maryknoll: Orbis, 1973). Originally published as *Teología de la liberación: Perspectivas* (Lima: CEP, 1971).

Hardage, Jeanette, *Mary Slessor, Everybody’s Mother*. (Cambridge, 2010).

Hardiman, David, (Ed.), *Healing Bodies, Saving Souls. Medical Missions in Asia and Africa*, (Amsterdam, New York, Rodolphi, 2006).

Hattersley, Roy, *A Brand from the Burning – a Life of John Wesley*, (London, Little, Brown, 2002).

Headrick, Daniel R., *The Tools of Empire. Technology and European Imperialism in the Nineteenth Century* (New York, OUP, 1881).

Health in Mission, <https://centerforhim.org> (Accessed 1 April 2018).

Heasman, Kathleen “The Medical Mission and the Care of the Sick Poor in Nineteenth-Century England.” *The Historical Journal*, 1964, Vol. 7, (2).

Hudson, E. H. "A Modern Equivalent for Medical Itineration" *International Review of Mission*, 1931, Vol. 20.

Huldschinsky, K., "Heilung von Rachitis durch kunstliche Hohensohnne, *DMW-Deutsche Medizinische Wochenschrift* 1919.

Ingram, Hilary, *Gender Professionalism and Power: the rise of the single female medical missionary in Britain and South Africa, 1875-1925*, (MA thesis McGill University, Montreal, July 2007).

Jakob, Beate, "Witnessing to Christ Today: Promoting Health and Wholeness for All", *International Review of Missions*, Vol. 101, No.1, pp132-152.

Jansen, G, "Medical Missiology: An Undeveloped Discipline Without Disciples. A Retrospective Review", *Exchange*, Vol. 24 (3).

Jansen G., "Christian Ministry of Healing on its Way to Year 2000: An Archaeology of Medical Missions", *Missiology; an International Review*, Vol. XXIII, No. 3 July 1995.

Jex-Blake, Sophia, "Medical Women", *The Nineteenth Century – a monthly review*, November 1877, Vol.129.

Kirk, J. A., "Lausanne Covenant" in Ferguson S. B. & Wright D. F. (eds), *The New Dictionary of Theology* (Leicester, IVF, 1988).

Küng, Hans, *Christianity – Its Essence and History*, (London, SCM, 1995). English translation by John Bowden 1995.

Kuzmič, Peter, "History and Eschatology: Evangelical Views", in Nicholls, Bruce J., *In Word and Deed Evangelism and Social Responsibility*, (Lausanne Committee for World Evangelisation, World Evangelical Fellowship) (Exeter, Paternoster, 1985).

Lambourne, R., *Community Church and Healing*, (London, DLT, 1963).

Latourette, Kenneth S., "Peter Parker Missionary and Diplomat," *The Yale Journal of Biology and Medicine*, January 1936 Vol. 8(3).

Lazich, M. C., *E. C. Bridgeman and the Coming of the Millenium: America's First Missionary to China*, Ph.D. Dissertation, University of New York, Buffalo, 1997.

Li, Victor H., Politics and Healthcare in China – the Barefoot Doctors, *Stanford Law Review*, Vol.27 (3) February 1975.

Liebow, Ely, *Dr. Joe Bell – Model for Sherlock Holmes*, (Bowling Green, Bowling Green State U.P., 1982).

Livingstone, David, Cambridge Lecture, 4 December 1857, in *Dr. Livingstone's Cambridge Lectures*, Monk, William, (Ed) (Cambridge, Deighton Bell & Co., 1858).
Livingstone, David, *Missionary Travels and Researches in South Africa*. (London, 1857) new edition (London, John Murray, 1899).

Livingstone, David, Letter to T. I. Prentice, Kuruman, 2 December 1841, in Holmes, Timothy (Ed.) *David Livingstone Letters and Documents 1841-1872*, (London, James Curry, 1990) p.21.

Lowe, John, *Medical Missions – Their Place and Power*, (London, Fisher & Unwin, 1866).

Lowe, John, *Medical Missions as Illustrated by Some Letters and Notices of the Late Dr. Elmslie*, (EMMS, Edinburgh, 1874).

Madipura Christian Hospital Society Annual Report, 2013-2014.

MacDonnel, G. P., "John Abercrombie M.D.", *Dictionary of National Biography*, (London, Smith Elder & Co, 1885) Vol. 1.

McGilvray, James, C., *The Quest for Health and Wholeness*, (Tübingen, DIFAEM, 1981).

MacGowan, Daniel, J. *Claims of the Missionary Enterprise on the Medical Profession*, an address delivered before the Temperance Society of the College of Physicians and Surgeons of the University of the State of New York, October 28 1842, (New York, William Osborne, 1842).

Mackintosh, C. W., *Dr. Harry Guinness – the Life Story of Henry Grattan Guinness MD FRGS*, (London, RBMU, 1916).

Medical Act 1858 21 & 22 Vict. c 90.

Mercy Ships: <https://www.mercyships.org.uk> (Accessed 1 April 2018).

Meiklejon, J.W., "David Livingstone" in Douglas J.D, (Ed), *The New International Dictionary of the Christian Church*, (Exeter, Paternoster, 1974).

Millar, A. A., *Alexander Duff of India*, (Edinburgh, Canongate, 1992) p.192.
<http://www.bu.edu/missiology/missionary-biography/c-d/duff-alexander-1806-1878/>

Müller, Samuel, "A German View of Medical Missions" *International Review of Missions*, July 1949 38 (151).

National Health Service (Scotland) Act 1947 10 & 11 Geo 6. c.27.

Needham, N, *2000 Years of Christ's Power, Vol. 4 The Age of Religious Conflict*, (Fearn, Christian Focus, 2016).

Ng, Peter Tze Ming, "Cheng Jingyi: Prophet of his Time", *International Bulletin of Missionary Research*, 2012, Vol. 36, No.1.

Nussbaum, S., *A Readers Guide to Transforming Mission* (New York, Orbis, 2005).

Olpp, G. "Medical Missions and their International Relations", *Modern Medical Missions*, Braun, K. W., Ed. Burlington: Lutheran Literary Board

Olpp, G. "The Contribution of Germany to Medical Missions" *International Review of Mission*, July 1931 Vol. 20 (3).

Palm, Theobald, "A. Letter to the Editor". *British Medical Journal* 1888, 2, 1247.

Palm, Theobald, "The Geographical Distribution and Aetiology of Rickets", *Practitioner*, 1890, Vol. II.

Pankhurst, Christabel, *The Lord Cometh: the World Crisis Explained*, 3rd Ed. (London, Marshal Morgan & Scott, 1923).

Parker, P. Bridgeman, E. C., Colledge, T. C. Circular reprinted in *China Repository*, December 1836, p.132.

Protestant Churches Medical Association & Lutheran Institute of Human Ecology, "Health is Wholeness – The Report of the Limuru Conference on the Healing Ministry of the Church, "(Feb. 1970), (Nairobi, PCMA & LIHE, 1970).

Ransford, Oliver, *David Livingstone: the Dark Interior*, (London, John Murray, 1978).

Ratcliff, C., Thyle, A., Duomai, S., Manak, M., "Poverty Reduction in India through Palliative Care: A Pilot Project", *Indian Journal of Palliative Care*, Jan-Mar 2017, Vol. 23[1] pp. 41-45, doi: [10.4103/0973-1075.197943](https://doi.org/10.4103/0973-1075.197943)

Rennick, A., "The Role of Medical Missionaries in Malawi 1875-1914", Ph.D. thesis, University of Stirling, December 2003, p.183.

Representation of the People Act 1918, 7 & 8 George V, c.64.

Robert, Dana, L., *Christian Missions - How Christianity Became a World Religion*, (Oxford, Wiley Blackwell, 2009).

Samaritan's Purse: <https://www.samaritanspurse.org/what-we-do/world-medical-mission-2/> (Accessed 31 March 2018).

Saxby, Jessie M. E., *Joseph Bell – An Appreciation by an Old Friend*, (Edinburgh & London, Oliphant, Anderson & Ferrier, 1913).

Schweitzer, Albert, *On the Edge of the Primeval Forest and More from the Primeval Forest*. (1922) And Schweitzer, Albert, *My Life and Thought - an Autobiography*. (Leipzig, 1931).

Shenk, William, "Henry Venn's Instructions to Missionaries", *Missiology an International Review*, Vol. V, No.4, Oct.1977.

Sider, R., *Evangelism, Salvation and Social Justice*, (Bramcote, Grove Books, 1977).

Simon, Elizabeth B., "Christianity and Nursing in India – a remarkable impact", *Journal of Christian Nursing*, April-June 2009, Vol.26, No.2.

Smit, J., "The Contribution to Medical Work and Nursing by the Pioneer Missionaries of the D.R.C. Mission in Nyasaland (Malawi) From 1889 -1900." *Curationis*, 1988, Vol. 11, No.1.

SOAS Web site: <https://archiveshub.jisc.ac.uk/search/archives/689702bf-6c5a-30ca-b4d9-272eb62b2f2b?terms=%22Medicine%22> (Accessed 1 January 2018).

Somerville, J. M., "Dr. Sophia Jex-Blake and the Edinburgh School of Medicine for Women (1886-1898)", *Journal of the Royal College of Physicians Edinburgh*, 2005, Volume 35.

Stanley, B., "The Church of the Three Selves: A Perspective from the World Missionary Conference, Edinburgh, 1910"; *The Journal of Imperial and Commonwealth History*, Vol. 36, No. 3, September 2008.

Stott, J. R. W., *The Lausanne Covenant – an exposition and commentary*, (Worldwide Publications, 1975).

Swinton, John, *Critical Reflections on Stanley Hauerwas' Theology of Disability: Disabling Society, Enabling Theology*, (New York, Haworth Pastoral Press, 2005).

Taylor, H. F. Lechmere, *A Century of Service 1841 1941. A History of the Edinburgh Medical Missionary Society*. (Edinburgh, EMMS, 1941).

Taylor H, *Biography of James Hudson Taylor*, (London, Hodder, 1965).

Thomas, Gary, *How to do Your Research Project*, 2nd ed., (London, SAGE, 2013), pp.75-82.

Thompson, J. C. "Statistics", *China Medical Missionary Journal*, Vol.11. p.30, quoted in Whitmore, Clara B. "A History of the Development of Western Medicine in China", Ph.D. thesis University of Southern California, 1934.

Thomson, W. Burns, *A Memoir of William Jackson Elmslie*. 4th edition, (Nisbet, 1891).

Thomson, W. Burns Thomson – *Reminiscences of Medical Missionary Work*, (London, Hodder & Stoughton, 1895).

Tian, Xaioli, "Rumor and Secret Space: Organ-Snatching Tales and Medical Missions in Nineteenth-Century China," *Modern China*, 2015, Vol. 41(2) p.203.

Tian, Xiaoli, "Relocating Science, Medical Missions and Western Medicine in Nineteenth Century China," Ph.D. dissertation, University of Chicago, 2011.

Tsai, H. H., "Dugald Christie CMG FRCS FRCP Edin. Scottish Medical Pioneer in Manchuria (1883-1923)", *Scottish Medical Journal* 1989; 34.

Tsai, H. H. "Scottish Women Medical Pioneers: Manchuria 1894-1912", *Scottish Medical Journal* 1992.

Van Reken, David, R., *Mission and Ministry: Christian Medical Practice in Today's Changing World Cultures*. (BGC Monograph, 1987).

Walls, "'The Heavy Artillery of the Missionary Army.' *Studies in Church History*, 1982, Vol. 19.

Walls, Andrew S., "Three Hundred Years of Scottish Missions" in Ross K. R. (Ed), *Roots and Fruits – Retrieving Scotland's Missionary Story*, (Oxford, Regnum, 2014).

Walls, Andrew, *Mission in the Twenty-First Century*. (New York, Maryknoll, 2008)

Walley, J. Lawn Joy E. et al, "Primary Healthcare: Making Alma Ata a Reality", *The Lancet* 13 September 2008.

Walsh J. & Warren K. S. "Selective Primary Health Care, an Interim Strategy for Disease Control in Developing Countries" *New England Journal of Medicine*, 1979 Vol. 301. (Reprinted *Social Science and Medicine* Vol. 14C pp145-163.)

Watt, Hugh, "Moderator Rax Me that Bible", *Scottish Church History Records*, Vol. X. (1950).

Webb, Sidney & Beatrice, *The State and the Doctor*, submitted in evidence to The Royal Commission on the Poor Laws 1909, Appendix, Vol.III.

Wedel, T. O. "Evangelism's Threefold Witness Kerygma, Koinonia, Diakonia", *The Ecumenical Review*, Vol. 9, No. 3.

Wesley, John, *Primitive Physick*, (1747).

White, Gavin, "'Highly Preposterous'; Origins of Scottish Missions", *Records of the Scottish Church History Society*, 19: 2 (1976).

Whitmore, Clara B. *A History of the Development of Western Medicine in China*, Ph.D. thesis University of Southern California, 1934.

Wilkinson, John, *The Coogate Doctors. The History of the Edinburgh Medical Missionary Society 1841-1991*, (Edinburgh, EMMS, 1991).

Wilkinson, John "To Preach and to Heal" Thanksgiving Sermon 150th Anniversary, *Healing Hand*, Autumn 1991/Spring 1992, (Edinburgh, EMMS, 1992).

Wilkinson, John, "Why we are here – an Introduction to the Conference" in *Health is Wholeness – The Report of the Limuru Conference on the Healing Ministry of the Church*, February 1970, (Nairobi, PCMA & LIHE, 1970).

Wilkinson, John, "Making Men Whole: The Theology of Medical Missions" the Maxwell Memorial Lecture for 1989, (London, CMF, 1989), Pp1-17.

Williams, C. Peter, "Healing and Evangelism: The Place of Medicine in Later Protestant Missionary Thinking", in Williams, C. Peter (Ed.), *Studies in Church History*, 1982 Volume 19. (CUP for the Ecclesiastical History Society).

Williams, P. "'The Missing Link': in The Recruitment of Women Missionaries in Some English Evangelical Missionary Societies in the Nineteenth Century", in Bowie, F. Kirkwood, D., Ardenor, S. (eds), *Women and Missions: Past and Present. Anthropological and Historical Perspectives*, (Oxford, Berg, 1993).

Wilson, Michael (ed), *Explorations in Health and Salvation a Selection of Papers by Bob Lambourne*, (University of Birmingham, September 1983).

Wong, Chimin K., and Lien-The Wu, *History of Chinese Medicine*, (Tientsin, Tientsin Press Ltd., 1932).

World Health Organisation, Declaration of Alma Ata, 1978,
http://www.euro.who.int/_data/assets/pdf_file/0009/113877/E93944.pdf.
(Accessed 1 February 2018)

World Health Organisation, "Preamble to the Constitution of the WHO", New York, International Health Conference, 1946, *Records of the WHO*, 1946 No.2, p.100.

World Missionary Conference, *A Brief History of Missionary Enterprise*, Lecture Memoranda, World Missionary Conference, Edinburgh 1910, (London, Burroughs Welcome, 1910).

The World Bank, *World Development Report – Investing in Health*, (Washington D.C., The World Bank Group, 1993).

Wotherspoon, Ian, "Dugald Christie - a Scottish Christian in a Changing China", *Sine*, September 2006.

Yao, Kevin Xiyi, "At the Turn of the Century: A Study of the China Centenary Missionary Conference of 1907" *International Bulletin of Missionary Research*, Vol.32, No. 2.

Young, Theron Kue-Hing, "The William Osler Medal Essay: A Conflict of Professions: The Medical Missionary in China, 1835-1890 " *Bulletin of the History of Medicine*; May 1, 1973; 47, 3; ProQuest.

Zhang, Cindy, "Obama Signed Letter of Gratitude to a Zhejiang hospital set up by a Missionary", *China Christian Daily*, 11 January 2017.

Zhuhai, City of, http://www.cityofzhuhai.com/2017-01/03/c_65533.htm (Accessed 6 December 2017).

Ziadat, Adel A, "Western Medicine in Palestine, 1860-1940: the Edinburgh Medical Missionary Society and its Hospital", *Canadian Bulletin of Medical History*, Vol. 10, 1993.

Appendix 2 – EMMS Objectives.

The Resolutions of the Inaugural Meeting of 30 November 1841.

- I. That this meeting being deeply sensible of the beneficial results which may be expected to arise from the labours of Christian medical men, co-operating with missionaries in various parts of the world, thus giving intelligible proofs of the nature and practical operation of the spirit of love, which, as the fruit of our holy religion, we desire to see diffused amongst all nations, resolve to promote this object to the utmost of their power, and to follow the leadings of Divine Providence, by encouraging in every possible way the settlement of Christian medical men in foreign countries.
- II. That considering the advantages that Edinburgh enjoys in being the seat of a Medical School of the first excellence, and resorted to by a large number of students from all parts of the kingdom, it is especially incumbent on its Christian public in general and on the Medical Profession in particular, to keep this good object in view, and to promote it by every means in their power and that for this purpose, a Society be now formed, under the name of the Edinburgh Association for Sending Medical Aid to foreign countries.

The Objectives of the Association:

- To circulate information on the subject.*
- To aid other institutions engaged in the same work.
- To render assistance at Missionary stations to as many professional agents as the funds placed at its disposal shall admit of.
- I.e. Christian overseas medical missions.

Appendix 3. Medical Work – Twelve Resolutions Presented at the Shanghai Missionary Conference 1907.

1. Whereas the Church has the authority of Scripture and the example of Christ for using the healing of the sick as a means of the revelation of God's gracious purpose towards mankind: and

Whereas, the view taken of the function of medical missions in the church has an important bearing on their efficiency and success:

Resolved: - that this conference recognises medical missions as not merely an adjunct to, but as an integral and coordinate part of, the missionary work of the Christian Church.

2. Whereas medical missionaries are sent forth as messengers of the church and ambassadors of Christ; and

Whereas the recognition of this adds largely to their influence and usefulness:

Resolved: -To recommend that medical missionaries should receive their commission from the home Churches and Societies in a public and unmistakeable way, and be solemnly set apart as missionaries of the Church.

3. Whereas the medical missionary in China must frequently carry on his medical and surgical work without assistance and under difficulties not experienced in home lands: and

Whereas the success or failure of this work has far reaching effects on the advance of Christ's cause: and

Whereas the Christian Church should give of her best in God's service:

Resolved to recommend that no partially trained men or women be appointed to undertake responsible medical work, and that medical missionaries should have the best possible medical training and equipment so that the done may be of a high standard.

4. Whereas it is of the highest importance that the medical missionary should have a good knowledge of the Chinese language, spoken and written, and should early gain experience of existing mission methods: -

Resolved: - to emphasise the advisability of relieving him of all responsible work during his first two years in the country, of requiring him to pass examinations not less searching. If on different lines, than those of his clerical colleagues, and of locating him for a time in an established medical centre.

5. Whereas, the primary aim of the medical missionary is to make known god's saving grace to man; and

Whereas he must necessarily have more influence on his patients than anyone else can have;

Resolved (a) To recommend that all evangelistic work and agents be under his direction: and (b) To impression medical missionaries the importance of personally superintending this work, and taking an active part in it.

6. Whereas, experience shows the hospital to be the most fruitful and satisfactory sphere of medical mission work, professionally, practically and spiritually, as well as the most economical;

Resolved:- (a) To recommend that medical missionaries concentrate their energies as much as possible on indoor-patient work; and (b) To urge churches to develop

this branch by an increased support of mission hospitals.

7. Whereas, medical missions are an essential part of Christian missionary effort; and

Whereas, it detracts largely from the usefulness of the missionary if he is hampered with the responsibility of finding the means of support for his work by private practice, or otherwise;

Resolved:- (a) To urge the churches to give full support to their medical missions, and to free medical missionaries from this burden while leaving it to them to make what efforts they consider advisable to gain local self-support, and (b) To urge the native church to rise to her responsibility and privilege in this matter.

8. Whereas, enquirers and applicants for baptism among hospital patients from a distance are frequently lost sight of and relapse into heathenism for want of continued instruction;

Resolved:- To urge the various missions to make provision for following such cases to their homes, and for introducing them to the nearest chapel and Christians in the neighbourhood.

9. Whereas, the work gathering around our mission hospitals cannot be fully overtaken by foreign physicians, without well trained native assistants; and

Whereas, there are many openings which might with advantage to the cause be occupied by native Christian medical men;

Resolved:- to urge the various Missionary Societies to unite in establishing thoroughly equipped medical schools in as many centres as possible.

10. Whereas, there is a pressing need for standard medical textbooks and other medical literature in Chinese for the use of native hospital assistants and medical students:

Resolved:- To request missionary Societies to hold themselves in readiness temporarily to set free, or unite in the support of one or two medical missionaries, as suitable men are found, for translating and publishing medical works, and also to secure to those who teach in medical colleges time and opportunity for the preparation of textbooks.

11. Whereas, this Conference recognises with thankfulness that the recent action of the British and Chinese government concerning the opium traffic, and the measures already promulgated for the suppression of the opium habit, give reason for hope that china may ere long be freed from this curse, and that the numbers seeking medical aid to renounce the vice may in the near future be largely increased:-

Resolved:- to urge on missions throughout china that they should seek more energetically to combat this great evil in every possible way; that they should extend the work of opium refuges; and that they should above all make prominent in all their efforts and in each individual case the power of Christ as the only sure hope of permanent salvation from the degradation of this vice.

12. Whereas, This Conference resolves to record its thankfulness to almighty God for the abundant blessings bestowed on medical missionary work in the past, and, in view of the many millions in china still untouched by the Gospel, and the appalling amount of preventable suffering from disease which calls so loudly to the Christian Church for relief, appeals earnestly to the home churches to send forth more men and women, fully qualified and consecrated, to carry on and extend this work.

Appendix 4 – EMMS Students (1851-1968).

Surname Date	Other Name or Initial	Graduation
1 Kuan	Huang (Wong Foon)	1851
2 Paterson	David H.	1851
3 Carnegy	John	1859
4 Henderson	James	1859
5 Lowe	John	1860
6 Valentine	Reverend Colin	1861
7 Vartan	Pacradooni (Pikratoon) Kaloost	1861
8 Davidson	Andrew	1862
9 Robson	William	1862
10 Stewart	John A.	1862
11 Elmslie	William J.	1864
12 Gauld	William	1864
13 Gentle	James	1864
14 Lockhart	William	1864
15 Crabbe	William T.	1865
16 Young	David	1866
17 Dickson	Matthew	1869
18 Henderson	W. A.	1870
19 Husband	John	1870
20 Hutchison	John	1870
21 Mackie	William	1870
22 Thomson	T. Smith	1870
23 Thomson	Alexander	1870
24 Bligh	(n/k)	1871
25 Elder	William	1871
26 Galt	James	1871
27 Lyell	(n/k)	1871
28 Maxwell	T	1872
29 Norris	Henry Lee	1872
30 Palm	Theobald	1873
31 Carey	William T.	1875
32 Dyer	James	1875
33 Lyall	Alexander	1876
34 Oftebro	(n/k)	1876
35 Smith	John	1876
36 Baxter	Edward. H	1877
37 Garabett	G. A.	1877
38 Hoernle	Edward	1877
39 Hornden	J. O. Farquhar	1877
40 Howard	John A.	1877
41 Stenhouse	Daniel	1877

42	Anderson	Peter	1878
43	MacFarlane	Edward	1878
44	Rosenberg	S.	1878
45	Pruen	W. L	1879
46	Southon	E.J	1879
47	Chalmers	George	1880
48	Edwards	Eben H.	1880
49	Neve	Arthur	1880
50	Scott	Levi Prinski	1880
51	Wilson	William	1880
52	Aitken,	W Kyd.	1881
53	Christie	Dugald	1881
54	Clark	H. Martyn	1881
55	Deane	John H.	1881
56	Johnstone	David W.	1881
57	Main	David Duncan	1881
58	McLeish	A.L	1881
59	Osborne	H.D	1881
60	Ridgley	Thomas	1881
61	Westwater	Alex M.	1881
62	Gillison	Thomas	1882
63	Gunn	William	1882
64	Horder	E. G	1882
65	Johnson	William	1882
66	Neve	Ernest F.	1882
67	Wilson	James P. A.	1882
68	Wingvist	Karl	1882
69	Comber	Sydney A.	1883
70	Cousland	P. B	1883
71	MacKinnon	Frank Irvine	1883
72	Churcher	T. G.	1884
73	MacFarlane	Sewell S.	1884
74	Rigg	John	1884
75	Scholes	T.E.S.	1884
76	Ardagh	V. E.R.	1885
77	Fry	Edwin Sargood	1885
78	Paterson	Alexander	1885
79	Pritchard	E. T	1885
80	Dardier	Henri	1886
81	Fenn	Samuel	1886
82	Marx	Carl Rudolf	1886
83	Tomory	J.K	1886
84	Bailey	H. J	1887
85	Cassalis	G. A.	1887
86	Mather	C. B.	1887
87	Roberts	Fred.	1887

88	Shrubshall	William w.	1887
89	Terry	C.L	1887
90	Browning	F. W.	1888
91	Greig	James A.	1888
92	Howie	James	1888
93	Kuhne	J. E.	1888
94	Mackay	Alex M.	1888
95	Moss	Charles Frederick Arrowsmith	1888
96	Soltau	Henry	1888
97	Smith	G.P	1888
98	Thomson	J. C.	1888
99	Young	T. McKillop	1888
100	Wolfendale	George A.	1889
101	Amner	Francis.H.	1890
102	Davies	S. H.	1890
103	Graham	F. M.	1890
104	Harkness	(n/k)	1890
105	Marshall	F W	1890
106	Moffat	Robert	1890
107	Pirie	William	1890
108	Rae	William	1890
109	Robertson	George	1890
110	Trench	Rev. F. P.	1890
111	Ashton	R. J	1891
112	Campbell	Kenneth	1891
113	Kember	Arthur T.	1891
114	Lamb	Robert	1891
115	Fells	Arthur	1892
116	Helm	J. T.	1892
117	Peake	George H.	1892
118	Robertson	A.W.	1892
119	Smit	Horrace. A.	1892
120	Andersen	W.H	1893
121	Bolton	R. Lee	1893
122	Robertson	G.D	1893
123	Muir	David. D.	1894
124	Piper	C.C	1894
125	Prentice	George	1894
126	Thomas	F Vincent.	1894
127	Wilson	Matthew	1894
128	Clayton	A. E.	1895
129	Landsborough	D. W.	1895
130	Montgomery	Eleanor	1895
131	Ramsay	J. C	1895
132	Sampson	A.T	1895
133	Stewart nee Cousins	Agnes Lillie	1895

134	Stokes	W.	1895
135	Aitken	Isabelle	1896
136	Squibbs	W.	1896
137	Taylor	H.F. Lechmere	1896
138	White	J. H.	1896
139	Wolfendale	Richard	1896
140	Young	W. A.	1896
141	Fletcher	Alfred Watkins Roby	1897
142	Mackenzie	Marcus	1897
143	Wills	E. F.	1897
144	Fowler	Henry	1898
145	Gibson	R. M.	1898
146	Jones	A. Fletcher	1898
147	King	Robert	1898
148	Lasbery	F.O.	1898
	Lawrence nee Philpott-		
149	Crowther	Faith	1898
150	MacDonald	W.R.	1898
151	McAll	P.L.	1898
152	Morris	Rev. J. R.	1898
153	Smith	J. A. Creasy	1898
154	Blaikie (nee Alexander)	Christina McCulloch	1899
155	Clark	C. Somerton	1899
156	Fisher	D L	1899
157	Griffith	A. H.	1899
158	Hardie	G. W.	1899
159	MacDonald Smith	Bess Green	1899
160	Mackenzie	E.	1899
	McKillop Young (nee		
161	Sampson)	Katherine Constance	1899
162	Norris	S. K	1899
163	Peill	Ernest John	1899
164	Smith (nee MacDonald)	B G	1899
165	Stooke	G. F.	1899
166	Evans	E. E.	1900
167	Gillam (Mrs White & Stewart)	Rosina Jane	1900
168	Graham	Andrew	1900
169	Morris	S. H.	1900
170	Smith	J. A MacDonald	1900
171	Turner	G. Reynolds	1900
172	Uffman	K.	1900
173	Bentall	William C.	1901
174	Gavin	Neil M.	1901
175	Baxter	Alexander Kidd	1902
176	Gavin (nee Stevenson)	Muriel M	1902
177	Nicholson	J. C.	1902

178	Stevenson	Muriel	1902
179	Beath	Nina H.	1903
180	Davidson	James	1903
181	Lane	Leo	1903
182	Levi (changed to Lane)	L.	1903
183	Newton (nee Ebdon)	A. M.	1903
184	Nivin	E. F.	1903
185	Bolton	Henry E.	1904
186	Cormack	J. G.	1904
187	Craw	James	1904
188	Grieve	J.	1904
189	Mumford	E. R.	1904
190	Newcombe	F. W.	1904
191	Robinson	J.	1904
192	Blair	C. E.	1905
193	Darling	T. N.	1905
194	Frohlich	Willy G.	1905
195	Ings	Joseph	1905
196	Pell	J.W	1905
197	Davies	Arnold	1906
198	Girling	E. C.	1906
199	Paterson	J.H. L.	1906
200	Wilson	Marion E.	1906
201	Fairburn (nee Maier)	Paula	1907
202	Lechler	J. H.	1907
203	Orrin	H. C.	1907
204	Fleming	William	1908
205	Lawrence	W. T.	1908
206	Bulloch	O. H	1909
207	Crocket	James	1909
208	Huckett	A. E.	1909
209	King	George.E.	1909
210	Pringle	Ella Ferrier	1909
211	Rees	Mwyfawny D.	1909
212	Robertson	William S.	1909
213	Schaffter	Chas. M.	1909
214	Taylor	William	1909
215	Wight (nee Ross)	Marguerite	1909
216	Hitchcock	J. W.	1910
217	Longland	Mrs	1910
218	Pedersen	P. N.	1910
219	Pugh	S. H.	1910
220	Schaeffer	C. D.	1910
221	Bronnum	N. H	1911
222	Langland (nee Shawyer)	D.L	1911
223	MacFarlane	Ian	1911

224	Price	Arthur C.	1911
225	Scott	John	1911
226	Walker	C. D.	1911
227	Thomas	G. Ap	1912
228	Jones	Stanley E.	1913
229	Osborn	S.	1913
230	Rose	H. E.	1913
231	Stedeford	E.T. A	1913
232	Bethell	S. E	1914
233	Collier	H.E	1914
234	Dukes	Cuthbert. E	1914
235	Murch	A H	1914
236	Venables	J. K.	1914
237	Bathgate	W. D.	1915
238	Clarke	A. R. F.	1915
239	Edwards	P.W.	1915
240	Paterson	R. McCheyne	1915
241	Shanks	W.	1915
242	Stockley	Clement I.	1915
243	Taylor	A. J. R.	1915
244	Werden	Lloyd H.	1915
245	McGregor	A.W.	1916
246	Eaton	Perry Bowles	1918
247	Hanna	Jasper B.	1918
248	Maya	Das F.	1918
249	Draper	Thomas	1919
250	Willway	Christine	1920
251	Wright	John H.	1921
252	Hastings	Harry	1922
253	Murray	C L L	1922
254	Stockley	Handley G.	1922
255	Kerr	A. Malcom	1923
256	Lidell	Robert V.	1923
257	Lucas	Amos A.	1923
258	Wright	Eric M.	1923
259	Wright (nee Cheng)	Mary J.	1923
260	Ashton	Frank R.	1924
261	Dugdale	J. Norman	1924
262	Mumford	Robert Harold	1924
263	Nicholson	Barbara	1924
264	Till	A. T.	1924
265	Wright	Morden H.	1924
266	Bailey	Basil N. V Wase	1925
267	Farrow	Edgar L.	1925
268	McQueen	Malcolm D.	1925
269	Round	Margaret	1925

270	Allan	David J.	1926
271	Henderson	J Randall.	1926
272	Horne	Jessie R.	1926
273	Leakey	R. A. B.	1926
274	McGill	Mary A.	1926
275	Newell	Olive Honour	1926
276	Thomas (nee Tait)	Margaret	1926
277	Worth	Harold R.	1926
278	Gale	George W.	1927
279	Milledge	G. W.	1927
280	Murray	Pauline	1927
281	Porter	Frances M.	1927
282	Pretorius	Mrs	1927
283	Stoker	S. Brandon	1927
284	Williams	John	1927
285	Wright	G. Montague. M.	1927
286	Young	A. Greville	1927
287	Baxter	David F.	1928
288	Craig	Hugh	1928
289	Hodge	Alice	1928
290	Stevenson	John	1928
291	Aitken	R Douglas	1929
292	Cumming	George Graham	1929
293	Kearney	John	1929
294	McLeod	Dan	1929
295	Miller	A. A.	1929
296	Milne	Jean M.	1929
297	Molander	William O.	1929
298	Thomas	Emerys Cadwaldr	1929
299	Turner	Robert A.	1930
300	Wyder	Ernest S.	1930
301	Cutting	Cecil G.	1931
302	Hyslop	Janet	1931
303	Freshwater	B Bruce	1932
304	Gullison	R Ben	1932
305	Lloyd	E. LI.	1932
306	Russell	George L.	1932
307	Sutherland	Ian	1932
308	Thomas	Alun Lloyd	1932
309	Watson	Winifrede M.	1932
310	Williams	J. Ivor	1932
311	Jenkins	Margaret	1933
312	Lunn	G. L.	1933
313	Master (nee McTaggart)	Christina	1933
314	Outerbridge	T.S	1933
315	Roulston	George. L.	1933

316	Saxton	Jack	1933
317	Cooper	W. C. J.	1934
318	Crook	Alan A	1934
319	Lloyd	G.Kenneth	1934
320	Mackenzie	James	1934
321	Prichard	R.E.	1934
322	Weeks	E. Burford	1934
323	Barnes	Eric G.	1935
324	Cumming	Wilfred Thomas	1935
325	John	Jamieson	1935
326	Morton	Marjory B.	1935
327	Strahan	A. W. B.	1935
328	Talbot	E. C. S.	1935
329	Bishop (nee Hudson)	Mildred	1936
330	Cayton	H Rymer	1936
331	Crosby	Leslie H.	1936
332	Haine	Francis S.	1936
333	Lees	William	1936
334	Ljungfalldt	Hilma KCM	1936
335	Paton	James Gilbert	1936
336	Ridge	Jessie C.	1936
337	Wilson	J. D. T.	1936
338	Heath	John W.	1937
339	Lake	Frank	1937
340	Merriweather	Alfred M	1937
341	Phillips	Oswold. M.	1937
342	Ross	John MacDonald	1937
343	Roworth	G. Donald	1937
344	Smith	Raymond B.	1937
345	Walker	Bernard Cohen	1937
346	Watt	Graham C.	1937
347	Affara	Ahmed Sa'eed	1938
348	Cornell	Sidney P.	1938
349	Cunningham	Dorothy	1938
350	Harman	Douglas J.	1938
351	Littlewood	Aylwin P.	1938
352	Swan	J. David	1938
353	Toop	John K.	1938
354	Toop	William j.	1938
355	Aldridge	Frances A M	1939
356	Cohen (becomes Collins)	Joseph	1939
357	Cooke	Leonore S	1939
358	MacRae	J. O. Farquhar	1939
359	McAll	Mrs R. K.	1939
360	McCallum	Catriona C.	1939
361	Seal	Kenneth S.	1939

362	Sinclair	Stuart Alexander	1939
363	Toop (nee Walker)	Dorothy	1944
364	Fleischmann	Charles W.	1940
365	Mole	Joyce B.	1940
366	Stafford	John B.	1940
367	Dabb	R. Gwen	1941
368	Haldane	James	1941
369	Lauckner	John R.	1941
370	Lennhoff	Liselotte	1941
371	Noble	Eric John	1941
372	Paterson	John	1941
373	Powell	Herbert J.	1941
374	Pugh	Ian S.	1941
375	Wilkinson	John	1941
376	(Unclear)	Mary	1942
377	Todman	Rodney Claude Frederick	1942
378	McAllister	James	1943
379	Allan	Robert	1944
380	Eaton	Newton Ramswell	1944
381	Haffner	Christopher	1944
382	Barry	B. Oscar	1945
383	Ellison	David	1945
384	Lake	Brian	1945
385	Boyd	Mary MacKay MacDonald	1946
386	Burton	James	1946
387	Irvine	Gordon	1946
388	Melecka	Nicholas V.	1946
389	Pool	John	1946
390	Sime	David A.	1946
391	Barry (nee McSwain)	Flora	1947
392	Barton	Mary Elizabeth	1947
393	Blaikie	Kenneth W.	1947
394	Hancock	Donald	1947
395	Green	Peter	1948
396	Gray	Joan	1948
397	Affara	Abdullah Saleh	1949
398	Brown	David Graeme	1949
399	Joelson	Ruth	1949
400	Moat	John Henry	1949
401	Morton	Winifred	1949
402	Richards	Gwyneth	1949
403	Althrop	Kathleen	1950
404	Byres	Alan	1950
405	Duck	Donald	1950
406	Duck (nee Mitchell)	Jean	1950
407	Green	Peter	1950

408	Hanna	William A.	1950
409	Marshall	Alexander K.	1950
410	Merricks (nee Althrop)	Kathleen	1950
411	Morris (nee Jackson)	Margaret	1950
412	Pears	Joan	1950
413	Campbell	Patricia E.	1951
414	Gardner	Reginald (Rex)	1951
415	Gardner (nee Latham)	Elizabeth	1951
416	Allan	Norman C.	1952
417	Banks	Arthur	1952
418	Bennett (nee Young)	Joan	1952
419	Calder	Michael	1952
420	Gale	Brenda	1952
421	Partridge	Alan	1952
422	Partridge (nee Hogg)	Rena	1952
423	Walker	Sheila	1952
424	Way	Gilbert Owen	1952
425	Way (nee Papigay)	Hedi	1952
426	Comely	John. F	1954
427	Marshall	Robert A.	1954
428	McCulloch	George M	1954
429	McCulloch (nee Caves)	Joan	1954
430	Cutting	William A R	1958
431	Cutting (nee Manderson)	Margot	1958
432	McDonnell	Harry	1958
433	Ross	Mary	1958
434	Harrison	Donald	1959
435	Mulligan	T. Osmond	1959
436	Pawson	Margaret	1959
437	Howard	Keir	1948
438	Cutting	Christopher J	1962
439	Kurien	Kvadakumkara Abraham	1963
440	Young	Andrew B.	1963
441	Daymond	Terence J	1964
442	Clark	Roland A.	1965
443	Prosser	John K.	1968
