Possible Research Topics for a History of Medicine Project

1. Ideas about reproduction 400 BC.

Read: *Hippocrates*, vol. X, ed. P. Potter, Harvard University Press: Cambridge MA, 2012, pp. 7-93.

What assumptions does the author make:

1) about the vehicles of genetic transmission?

2) about the contributions of the two sexes?

3) about structural and functional abnormalities of parents and children?

4) about the formation of the fetus?

5) about what constitutes scientific evidence and proof?

6) about the roles of air, moisture, heat and cold in embryogenesis?

7) about botanical parallels to human growth?

2. The obstetrician and the midwife 100 AD.

Read: *Soranus' Gynecology*, tr. O. Temkin, Johns Hopkins University Press: Baltimore, 1956, pp. 3-68.

How does Soranus:

1) imagine the ideal midwife to be?

2) depict the structure and function of the female organs of reproduction?

3) explain menstruation and its possible purposes?

4) treat virginity as a factor in health?

5) relate his own arguments to views held by other writers?

6) see the woman's role in conception?

7) depict normal pregnancy?

3. An early treatise on small-pox 900 AD.

Read: *A treatise on the small-pox and measles by Rhazes*, tr. Wm. Greenhill, Sydenham Society: London, 1848, pp. 27-73.

How does Rhazes:

1) situate himself historically in relation to Galen?

2) explain small-pox in terms of temperature and humours?

3) relate the disease to patients' habits and the climates they are exposed to?

4) organize his therapeutic program?

5) see the role of "Nature" in healing?

6) apply local treatments to decrease the disease's symptoms and sequelae?

7) counteract the disease's effects by dietetic means?

4. Medieval textbook of gynecology written by a woman 1050 AD.

Read: *The Diseases of Women by Trotula of Salerno*, tr. E. Mason-Hohl, Ward-Ritchie Press: California, 1940, pp. 1-51.

How does Trotula:

1) explain how she came to take up medicine?

2) organize her accounts of specific conditions?

3) Use ancient authorities to back up her arguments?

4) structure her textbhook?

5) explain and treat dystocia?

6) introduce her own experience into the narrative?

7) choose and justify her therapies?

5. An early collection of autopsy reports 1507.

Read: *De abditis . . . morborum . . . causis by Antonio Benivieni*, tr. C. Singer, Charles C. Thomas: Springfield Ill., 1954, pp. 3-209 (odd pages).

How did:

1) this book come to be published in 1507?

2) the editor arrange the cases?

3) the author relate what he found at autopsy to each patient's clinical history?

4) the author choose what parts to examine in each cadaver?

5) the author's lack of normal anatomical knowledge limit his ability to interpret the morbid anatomy he saw?

6) the status of the patients dissected reflect current social hierarchy?

7) theoretical teachings influence the author's explanations?

6. A book of occupational health 1700.

Read: *Diseases of Workers by Bernardo Ramazzini*, tr. W. C. Wright, Hafner: New York, 1964 (second edition), pp. 7-201 (odd pages).

How does Ramazzini:

1) set his book into a historic context?

2) relate his account to opinions held by ancient authorities?

3) draw on information reported in contemporary medical literature?

4) use anecdotes to give his book vividness?

5) value wet-nurses as a substitute for mothers?

6) present the curative effects of tobacco?

7) explain the actions of various metals on the body?

7. The first general textbook of biochemistry 1842.

Read: *Animal Chemistry or Organic Chemistry in its application to Physiology and Pathology (by Justus Liebig)*, tr. W. Gregory, Reprint edition with an introduction by F. L. Holmes, Johnson Reprint Corporation, 1964, "Preface and "Part I".

What function does Liebig attribute to:

1) carbohydrates in the production of fats?

2) scientific research as a means of establishing permanent truths?

3) the "globules of the blood" (red blood corpuscles)?

4) agriculture in enabling civilization?

5) food in the production of heat?

6) quantitative chemistry in explaining nutrition?

7) oxygen in metabolism?

8. Founding editor of the CMAJ 1911.

Read: *Sir Andrew Macphail*, by Ian R. Robertson, McGill-Queen's University Press, Montreal, 2008, pp. 24-84, 176-189 and 206-219; AS WELL AS early editorials by Macphail in the CMAJ

1) What does Macphail's life show about Montreal social structures around 1900?

2) How did the creation of the CMAJ come about?

3) How does *Marie Chapdelaine* depict French Canadian culture?

4) What was the role of the "essayist" in Macphail's time?

5) How did Macphail's Prince Edward Island origin influence his ideas about "progress"?

6) What was the *University Magazine*?

7) How did Macphail see Canada's (and especially the Canadian Army Medical Corps') role and performance in WW I?

8) How did his background/views shape the CMAJ?

9. An influential practitioner/ surgeon/ researcher at Western University – describe what they contributed to medicine and assess its impact

Read their published research papers as well as biographies and obituaries; Check Murray Barr, *A Century of Medicine at Western* (1977) and/or Edwin Seaborn, *The March of Medicine in Western Ontario* (1944) for some historical background. Archival material available at ARCC, Weldon Library, Western U.

A few individuals to consider include:

1) **Dr Charles George Drake (1920-98),** neurosurgeon, known for repair of ruptured brain aneurysm
2) **Dr James Bertram Collip (1892-1965),** purified insulin & extensive study of hormones, finished medical career at Western as Dean of Medicine
3) **Dr Ian McWhinney (1926-2012),** family medicine

4) **Dr Murray Barr (1908-95),** identified the sex chromatin body, now known as the Barr body
5) **Dr Richard Maurice Bucke (1837-1902),** Canadian psychiatrist and Medical Superintendant at the London Asylum for the Insane from 1877-1902
6) **Dr Kathleen B. Sanborn,** the first female student in the Faculty of Medicine, graduates in 1924. Dr. Sanborn went on to open a successful practice in Windsor, Ontario with her husband, also a graduate of Western's medical program.
7) **Dr Henry Barnett,** his research and work in stroke prevention has changed the way stroke patients receive treatment.
8) **Dr G. Edward Hall,** known for his work studying the effects of high altitudes on pilots, work initiated from WWI and WWII aviation advances
9) **Dr Earl S. Russell,** a leader in Pain Management at Western and early proponent for the use of epidurals for the relief of labour pain.
10) **Dr O. Harold Warwick,** a pioneer in medical oncology.

10. A medical procedure and/or medical device named after its innovator – describe what and how it contributed to medicine, and assess its impact (ie. APGAR scale, Smellie's obstetrical forceps)

Might consult Jacalyn Duffin, *History of Medicine: A Scandalously Short Introduction* (2010), Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Hum*anity (1997), Audrey Davis, *Medicine and its technology: an introduction to the history of medical instrumentation* (1981), Allison Kirk-Montgomery and Shelley McKellar, *Medicine and Technology in Canada, 1900-1950* (2008)