Jessica Kirwan // January is almost gone and perhaps few people have given thought to the fact that it is cervical cancer awareness month. Health calendars are hard to follow, after all (don't even look at the month of September, which asks you to attend to eight cancer types), but coincidentally this month I became aware that the field of radiation oncology, in which I've been working as an editor and research coordinator for the last 15 years, largely exists because of the treatment of cervical cancer in the early twentieth century. But, also, as a perpetual student of nineteenth-century British women's history, I was even more interested to learn that many of the field's earliest practitioners and proponents were British women physicians.

Ornella Moscucci's fascinating books and articles on the history of gynecology and cancer in England introduced me to radiotherapy's feminist history but, more specifically, to Dr. Helen Chambers. A trained pathologist, Chambers began studying the effects of radium on blood and later on tumors, although the use of radiation in cancer treatment was initially met with suspicion and had not achieved any success early in the century. Yet Marie Curie's discovery of radium instilled new hope and, in the early 1900s, Chambers collaborated in research with radium expert and physicist Sidney Russ. After serving as a physician in the first World War (and introducing an antispectic called Bipp for which she received a CBE), she was hired as radium research officer at Middlesex Hospital. While in that role, in 1924, Chambers delivered an address in which she "suggested that a body of medical women might co-operate in a study of one specific aspect of cancer therapy" (Dickson), namely, radium therapy. Thus, an exploratory committee comprised of Chambers and four additional women doctors representing four women's hospitals was created to learn about radiotherapy for cervix treatment. "Cervical cancer was the leading cause of cancer death among British women until 1940," and around 1900 it was largely seen as a "hopeless and uniformly fatal disease" (Moscucci). The standard of care was hysterectomy, which carried with it a high likelihood of mutilation and high mortality rates, especially since most women presented

with advanced disease. Searching for an alternative to this morbid surgery, Chambers traveled with her colleagues throughout Europe studying the use of radium in cancer treatment and deciding on the Stockholm method of delivery as the most likely to succeed.

After a donation of radium from the Medical Research Council and King Edward's Hospital fund, Chambers's first patient, a woman with advanced cervical cancer, was treated in 1925. Chambers worked alongside Dr. Elizabeth Hurdon, a well-known gynecologist. The women traveled with radium to four women's hospitals to treat cervical cancer in what might be considered one of the first multi-institutional clinical trials in radiotherapy. "[I]n the next three years more than 300 patients were treated" (Dickson), and each case was followed and documented. It is to Chamber's credit that the woman-run Marie Curie Hospital came to be in 1929, just five years after her address proposing an organized effort to study radiotherapy for gynecologic cancer. The radium no longer had to travel to the women, a dangerous task. By 1932, according to the American Dr. Bloodgood who had observed treatment at Marie Curie Hospital, the cure rate for cervical cancer had improved to 35% largely owing to the successes of Chambers. And by 1939, when Dr. Maliphant, a gynecologist, published his outcomes on 650 women with cervix cancer treated with radiotherapy using the Stockholm method, physicians recognized that a "radiological approach" was now the standard of care. In 1929, Chambers wrote that across Europe 5,000 women had been treated with radium therapy. Whereas the mortality rate from hysterectomy was 17%, with radium therapy it was below 1% if carried out properly. Chambers also noted that more than 12% of inoperable women lived longer, healthier lives with radium therapy (based on 5-year rates).

Chambers argued that radiotherapy required its own specialization with qualified technicians, rather than it serving as another tool under the control of the surgical gynecologists. In fact, according to Moscucci, in the hands of mostly male gynecologic surgeons, radiotherapy came to be used alongside surgery rather than as an individual treatment. In these cases, treatment-related mortality rates remained devastatingly high. In Chambers's practice, however, radium was delivered without surgery, achieving the highest cure rates but also palliating illness in incurable cases. Chambers believed the cooperation of surgeon, physicist, and pathologist was essential to the proper diagnosis and treatment of cancer.

After successfully improving cure rates of cervical cancer with radiotherapy, Chambers went on to study the use of radiotherapy in breast cancer. In Paris, she studied under Henri Coutard, the physician who pioneered the use of fractionated doses of radiotherapy, a practice which revolutionized radiotherapy treatment allowing for larger doses distributed in small daily fractions; Chambers helped popularize his method.

Helen Chambers died of breast cancer in 1935.
An obituary in the *BMJ* recognizes her significant contributions to cancer care despite her aversion to publishing and public speaking. While I don't want to over-play Chambers's contributions to a field occupied by many physicians and

researchers, many of whom were women, it seems largely due to her singular organizational skills and drive to address the question of radiotherapy's efficacy that we arrived, in such short time, at the specialty we are familiar with today.

Helen Chambers (1879–1935)
by Reginald Haines, published 1920
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Works Cited

Obituary: Helen Chambers. Nature. 17 August 1935: 250.

Obituary: Helen Chambers. British Medical Journal. 1935:234-235.

Bloodgood JC. Cancer of the Cervix: The Immediate Necessity for Earlier Diagnosis And Treatment . The American Journal of Cancer. 1932. 16 (5): 1238-1245.

Chambers H. Radium Treatment of Cancer of the Cervix. The Lancet. 1927 Dec 31. 210(5444): 1406-1408.

Dickson RJ. The Marie Curie Hospital 1925-68. Br Med J. 1968 Nov 16;4(5628):444-6.

Maliphant RG. The Complications of Radium Therapy in Cancer of the Uterine Cervix. BJOG: An International Journal of Obstetrics & Gynaecology. 1939 October; 46(5):873-884.

Moscucci O. The "ineffable freemasonry of sex": feminist surgeons and the establishment of radiotherapy in early twentieth-century Britain. Bull Hist Med. 2007 Spring;81(1):139-63.