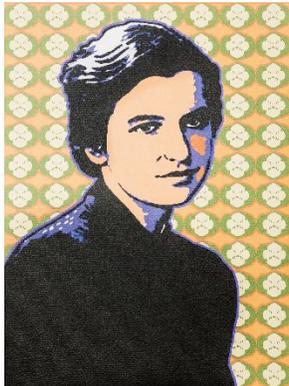


## Women's History Month vignettes

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Following up Black History Month was Women's History Month. In my other "What's on your Mind?" piece in this issue, I highlight an extraordinary Black father and daughter who shaped medicine and specifically cancer medicine in the United States, Drs. Louis and Jane Wright. This is a remarkable family with multiple generations of physicians.

For Women's History Month, I would like to share about five additional women who have made an international impact on health and medicine. I have photos or artistic impressions of these amazing scientists and leaders in this piece. Please read on to find out more about them.



### Rosalind Franklin (1920-1958)

While James Watson and Francis Crick received the credit – and the Nobel Prize – for discovering DNA, it was actually Dr. Rosalind Franklin who determined the structure of DNA. She was a chemist who worked in the field of X-ray crystallography. She took images of DNA that showed the double helix structure. Dr.

Watson saw the pictures in her laboratory in London, then went to Cambridge and constructed the now famous model of the double helix and published it in a medical journal without giving Dr. Franklin credit. Unfortunately, she died of cancer at age 38, never receiving the credit she was due.



### Florence Nightingale (1820-1910)

While serving as a manager of nurses in the Crimean War, Florence made incredible progress in reducing death rates by improving hygiene in military medical facilities. Under her leadership, the death rate in the military hospital declined from 42% to 2%. Upon returning to

England, she was able to incorporate the sanitary practices in peacetime hospitals. She established a training program for nurses, later called the Nightingale School, and wrote the book "Notes on Nursing," becoming a best seller by the medical and lay public. She is also famous for using statistics

as a tool to come to her conclusions about health care and is considered the founder of modern nursing.

### Helen Keller (1880-1968)

Most know the life of Helen Keller from the wonderful movie, "The Miracle Worker," about how she overcame the challenges of deafness and blindness as a girl. Subsequently, she went on to be an author and advocate for disability rights. From 1924 to her death in 1968, she worked for the American Foundation for the Blind and lectured throughout the world advocating for those with visual loss. A voice against discrimination of any kind, she was a founding member of the American Civil Liberties Union (ACLU).



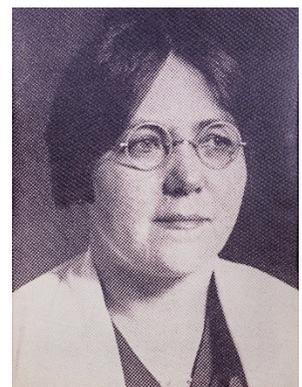
### Marie Salomea Sklodowska-Curie (1867-1934)

Born in Poland, she attended university in Warsaw and moved to Paris to continue her scientific education. There she married the French physicist Pierre Curie and together they uncovered "radioactivity," a term she invented. Together, she and her husband won the Nobel Prize in physics for their joint discovery. She was the first woman to receive a Nobel. She continued her work and after she discovered radium and polonium, she received a second Nobel Prize in chemistry. She conducted the first studies to treat cancer using radioactive isotopes and founded the Curie Institute in Paris and Warsaw.



### Mary Walker (1888-1974)

All the women I described above are probably well known to many of you. Dr. Walker, however, may not be. Born in Scotland, she attended the Edinburgh College of Medicine for Women. In World War I, she served in the Royal Army Medical Corps in Malta. She then was an Assistant Medical Officer at St. Alfege Hospital in Greenwich, London. It was here taking care of patients with the neurologic disorder myasthenia gravis, that she recognized the similarity



between the symptoms of that disease and poisoning from the toxin curare. Both have eye droop and muscle weakness and slurred speech. The compound physostigmine, which was extracted from the West African Calabar bean, had been shown to be an effective antidote for curare poisoning. In 1934, she made the medical judgement and administered the drug physostigmine to several patients with myasthenia gravis. The effect was dramatic and resolved the symptoms

within minutes. That class of drugs remains the first line treatment for myasthenia gravis nearly 100 years later.

*These vignettes are why I have portraits of all these amazing scientists in my office at the University of Missouri School of Medicine. You are welcome to stop by and see them some time.*

