

[Florence Rena Sabin \(1871-1953\)](#) ^[1]

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[Florence Rena Sabin](#) ^[5] had successful careers as both a researcher and public health reformer. When [Johns Hopkins University](#) ^[6] Medical School opened, accepting women and men on the same basis, Sabin was one of the first to enter. After the successful completion of her MD degree, Sabin went on to become the first female faculty member and later full-time professor at Johns Hopkins. From 1924–1925, she was the first woman elected president of the American Association of Anatomists, the first woman elected to the [National Academy of Sciences](#) ^[7] in 1925, and the first woman to become a full member of the [Rockefeller Institute](#) ^[8]. Her research on the brain, the lymphatic system, and immunology was revolutionary, and her vast scientific knowledge and convincing personality greatly contributed to the passage of much needed public health reform legislation during her “retirement” years in Colorado.

[Florence Rena Sabin](#) ^[5] was born in Central City, Colorado, on 9 November 1871. After her mother died in 1878, Sabin’s father placed her and her sister in Wolfe Hall boarding school in 1879. In 1883 Sabin lived with her grandparents in Vermont, where she later graduated from Vermont Academy in Saxtons River in 1889. After her graduation, Sabin attended [Smith College](#) ^[9] to study mathematics and science and became interested in women’s rights and medicine. In 1893, the same year Sabin graduated from Smith, [Johns Hopkins University](#) ^[6] Medical School opened. Sabin taught mathematics and zoology in Denver from 1893–1896 in order to earn money to continue her education, and in the fall of 1896 she began her medical education at Johns Hopkins.

Her first research endeavor at Johns Hopkins was under the guidance of Franklin P. Mall, professor of anatomy. While an undergraduate, Sabin studied the brain and constructed a model of the medulla, pons, and [midbrain](#) ^[10]. In connection with this project, she wrote [An Atlas of the Medulla and Midbrain](#) ^[11], a lab manual that was published in 1901 and became a popular textbook. In 1900 she graduated from Johns Hopkins with a medical degree and interned at the [Johns Hopkins Hospital](#) ^[12] in internal medicine. In 1901 she received a fellowship in anatomy from the University, which was the beginning of a twenty-five year research and teaching involvement with Johns Hopkins. In 1902 she became the university’s first female faculty member as an assistant in anatomy, and in 1917, she received the first full professorship ever awarded to a woman at Johns Hopkins.

Throughout her early research at Johns Hopkins, Sabin worked on the origins of the lymphatic system and the blood cells. Using [pig](#) ^[13] embryos Sabin was able to show that the lymph channels arise from the veins by a series of endothelial buds. Throughout her research, Sabin made numerous trips to Germany to learn new laboratory techniques. Among the most important was [supravital staining](#) ^[14], the staining of living tissues. In the later years of her research Sabin focused on immunology, more specifically in the reaction of body cells to tuberculosis and the body’s ability to acquire immunity to the bacterium. In 1925 Sabin left Johns Hopkins to establish a laboratory at the in New York to continue her research on the cellular aspects of the immune response.

In 1938 Sabin became emeritus, retired, and moved to Denver. In 1944 she was asked to head a committee on health for the governor of Colorado’s Post War Planning Committee. In 1947, after working diligently to successfully pass new health laws, Sabin was appointed chairman of the Interim Board of Health and Hospitals of Denver and held the position until 1951. She retired again in 1951 to care for her ailing sister in Denver. Just a few weeks shy of her 82nd birthday, Florence Sabin died on 3 October 1953.

Sources

1. McMaster, Philip D., and Michael Heidelberger. “Florence Rena Sabin.” *Biographical Memoirs*. [National Academy of Sciences](#) ^[7] 34 (1960): 271–319.
2. Brieger, Gert H. “Sabin, Florence Rena.” *Dictionary of Scientific Biography* 12: 48–49.
3. Ogilvie, Marilyn. “Sabin, Florence Rena (1871–1953).” In *Biographical Dictionary of Women in Science* 2, eds. Joy Harvey and Marilyn Ogilvie, 1140–42. New York: Routledge, 2000.

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