

Women in Science

This blog celebrates women in science, pioneer women in science, famous or almost famous, modern-day scientists, and ordinary women doing science everyday without any thoughts of future awards and accolades. It will tell the story of women who worked side by side with famous men and who did not get any recognition for their works. It will celebrate women of all races, ethnicity, wealth, status, religion, and sexual orientation from all over the world. Perhaps you know of a woman scientist who did not get recognition for her work, someone who gave up after encountering so many obstacles or someone like Ellen Richards who persevered and became the first woman to get a degree in Chemistry and the first woman accepted at a scientific institution in America? This blog will tell their stories so that our daughters and granddaughters can learn from them, perhaps get them interested in science, and hopefully correct some of the slights/injustices suffered by these women.

I plan to discuss the life of a female scientist every two weeks or so. I will start with my favorite scientist Ellen Henrietta Swallow Richards. Just like the fictional scientist Elizabeth Zott, the protagonist in the book and the TV series *Lessons in Chemistry*, Ellen Richards was working as a chemist in a world full of men. These are both women I admire, both smart, both suffered injustice but carried on with their lives and became pioneers in their field. Both also tried to help housewives, gave them advice on how to run a household with scientific principles not only in cooking but in cleaning their houses. In 1908, the American Home Economics Association (AHEA) was established, and Ellen was elected as its first president. AHEA's goal was to improve the living conditions in the home, institutional household, and the community. In 1882, she wrote the book *The Chemistry of Cooking and Cleaning: A Manual for Housekeepers*. Part I of the book talked about the scientific principles related to cooking, why yeasts work when cooking bread, reasons for food spoilage and short chemical equations to demonstrate the reactions. Part II emphasized that the state of cleanliness must be achieved in the cheapest and fastest way. It talks about the chemical composition of soap, why vinegar is not always the best for removing ink stains and that acid must not be used on marble because it dissolves fast, and the polish is lost.

Elizabeth Zott and Ellen Richard both studied for their PhD in Chemistry but due to different reasons, both did not receive their Ph.D. Elizabeth worked as a laboratory assistant in a laboratory run by men, correcting their mistakes and helping them with their experiments. Elizabeth has a master's degree in chemistry but was working as a laboratory assistant. Finally, when she lost her job as a laboratory assistant, she accepted the job of a cooking show host on national television called *Supper at Six*. She took this opportunity to dispense lessons in chemistry and life advice to the women in the audience. She encouraged these women to go after their dreams. She knew that national television will be a good platform to encourage women to cook nutritious meals for their children. She thought maybe if they knew the chemistry behind the recipes, women will be more likely to prepare them. She also encouraged them to go for their dreams. One woman in the audience was inspired to go to medical school. Just like Elizabeth, Ellen wanted to help women in their scientific education. She convinced MIT to build a Woman's Laboratory and offer classes in chemistry, biology, and mineralogy. Ellen thought that teachers cannot teach science unless they themselves have been trained in science. These women were the first science teachers in the country.

The website and blog will be launched on May 1, 2024 in honor of International Worker's Day also known as Labor Day in some countries. This is a way to honor the women in the workforce. The world average percentage of women in the workforce in 2022 was 39.49 %. In the United States the average percentage of women in the workforce is 46.38 %. Here's to all working women who persevere everyday no matter how busy and how crazy their days get to be! We support and honor them as our true heroes!