

## **Thinking about gender and science:**

### **From Marie Curie to Katalin Karikó**

The recipient of not one, but two Nobel Prizes, and the only person to win them in two scientific categories, first in physics and then in chemistry, Maria Sklodowska-Curie is the only woman included in the traditional pantheon of towering figures in the history of science, joining Copernicus, Galileo, Darwin, Pasteur and Einstein. An iconic figure, the mere mention of her name, or the appearance of her visage, conjures up images of stellar qualities associated with great scientists—patience, persistence, single-mindedness, curiosity, and exactitude. In this presentation, we will explore the experiences of Curie and other women including the physicist Lise Meitner, the environmentalist Rachel Carson, and some scientific couples including Marie and Antoine Lavoisier, and Carl and Gerty Cori. Over the last century, many women found themselves negatively compared to Curie (“she’s no Marie Curie”) and undervalued or underestimated in scientific circles. Historian of science Margaret Rossiter, who was my mentor at Cornell University, gave us a powerful vocabulary for understanding these experiences: territorial segregation, hierarchical segregation, the "harem effect", credentialism, honorary men, the "bright young man" theory, compensatory awards, the professional meanings of the "smoker," anti-nepotism rules, the Matilda effect—and so on. All these terms capture the complex professional landscape navigated by women who wanted to contribute to the scientific enterprise, and they suggest some continuing challenges for anyone who does not conform to relatively narrow images of who counts as an expert interpreter of nature—a person who can speak for nature. We close with a consideration of the University of Pennsylvania’s (my home institution) Nobel Prize winner Katalin Karikó, who was demoted at Penn four times, and eventually fired—a history that has not stopped the university from celebrating her achievements.....