June 2025 Her Story ENewsletter
National Medal of Science Recipients

In January of 2025, President Biden presented National Medals of Science and National Medals of Technology and Innovation to a group of men and women who have made significant contributions to our well-being and quality of life. Regarded as the U.S. equivalent of the Nobel Prize, to date, 77 women have received one of these prestigious honors. Among the women included in our book, seven have received the National Medal of Science. In this month's ENewsletter, we profile the first – Barbara McClintock (1970) and Chien-Shiung Wu, both of whom have also been inducted into the National Women's Hall of Fame and, as well, featured on a U.S. postage stamp.

The citation for **Barbara McClintock's** National Medal of Science (1970) in the Biological Sciences reads: *For establishing the relations between inherited characters in plants and the detailed shapes of their chromosomes, and for showing that some genes are controlled by other genes within chromosomes*. Although McClintock would become the first woman to receive an un-shared Nobel Prize in Physiology or Medicine (1983) for her work on mobile genetic systems (sometimes referred to as jumping genes), the many honors that she received were long in coming.

McClintock's discovery refers to the ability of genes to change positions on the chromosome. McClintock's work had originally been published in 1950 but was not well received by the scientific community. In fact, it was not until the 1970s, when technology had been developed that enabled scientists to study at the molecular rather than the cellular level, that her theories became accepted. McClintock continued to work until age 90.

Nuclear physicist **Chien-Shiung Wu** was awarded the National Medal of Science in the Physical Sciences (1975) with a citation that reads: *For her ingenious experiments that led to new and surprising understanding of the decay of the radioactive nucleus*. During her years at Columbia University, Wu performed an experiment that confirmed that the "Law of Conservation of Parity" did not hold up in nature. The two men who proposed the theory that Wu proved with her experiments, received the 1957 Nobel Prize in Physics. She was not included, most likely due to her gender.

Wu came to the United States from China to pursue graduate studies at the University of California at Berkeley. After receiving her PhD, she participated in the Manhattan Project – the successful effort by the U.S. to develop the atomic bomb. Wu received many honors for her work. She was the first living scientist to have an asteroid named after her. Wu was the first Chinese American person to be elected to the National Academy of Sciences, the first female instructor in the Department of Physics at Princeton University, the first woman to receive an honorary doctorate from Princeton University, and the first female president of the American Physical Society.

Barbara McClintock and Chien-Shiung Wu are among the more than 850 women profiled in our book *Her Story: A Timeline of the Women Who Changed America*. Women's accomplishments continue to inspire and encourage us. Continue to help us tell women's stories!

Charlotte Waisman and Jill Tietjen

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