



# Barbara McClintock

Dr. McClintock grew up independent and determined. Her university did not offer a MS or PhD in genetics, so she received a degree in botany and started a cytogenetics research group.

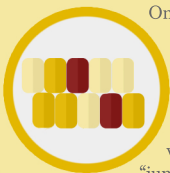
As a student, in addition to her research, she played banjo in a jazz band and participated in student government.

## A-maize-ing Advances



Barbara developed techniques for visualization of chromosomes. This allowed her to develop the first genetic map for maize, tracing traits to regions of the chromosome and showing the order of their physical location.

She also discovered that in corn, chromosomes had protective caps on the end to keep them from fusing together and circularizing. We know these as telomeres.



One of her most famous discoveries was transposons. Transposons are pieces of DNA that can move through the genome to regulate genes. She is often called the woman who discovered “jumping genes”.

Dr. McClintock continued her work in maize by contributing to the field of ethnobotany. She studied the evolution of different maize varieties in South and Central America.



Dr. McClintock has received many awards and acknowledgements for her work including the National Medal of Science, the Nobel Prize, and she was elected as the first female president of the Genetics Society of America.

### Sources

O'Connor, Clare (2008) Telomeres of human chromosomes. Nature Education 1(1):166  
Pray, Leslie and Zhaurova, Kira (2008) Barbara McClintock and the discovery of jumping genes (transposons). Nature Education 1(1):169

\* Barbara McClintock." Famous Scientists.org.

«The Barbara McClintock Papers» National Institute of Health

«Barbara McClintock» Wikipedia

Corn icon adapted from flat icon, karyotype adapted from Florida State University

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