

# Henrietta Lacks' "immortal" cells

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TOP: Henrietta Lacks' (left) cells were essential in developing the polio vaccine and were used in scientific landmarks such as cloning, gene mapping and in vitro fertilization. (Courtesy of the Lacks family). SECOND: Scanning electron micrograph of just-divided HeLa cells. Courtesy of National Institutes of Health (NIH)

We know no one lives forever. But, one woman's cells from 65 years ago seem to be the first immortal cells that scientists have. It was a mystery until not too long ago where these cells came from.

Cells are the building blocks of life. They are the basic unit of living things.

Scientists grow human cells in labs to learn more about the causes and treatment of diseases. They need cells that can grow forever and also stay frozen for many years.

## Called HeLa Cells

In 1951, a scientist at Johns Hopkins Hospital in Baltimore, Maryland, created the first everlasting human cell line. The cells came from a young black woman with cervical cancer.

Those cells, called HeLa cells, have been important to the world of medicine. But, no one knew much about the person they came from. When the cells were taken, they were given the code name HeLa, for the first two letters in Henrietta and Lacks. But, Henrietta's real name wasn't known until the 1970s.

Rebecca Skloot wrote a book published in 2010. It is called "The Immortal Life of Henrietta Lacks." Skloot tracked down the story behind the amazing HeLa cells.

## **Henrietta Lacks' Important Cells**

Henrietta was a black tobacco farmer from southern Virginia who had cancer when she was 30. A doctor in Maryland took a piece of her tumor without telling her and sent it to scientists. No one knows why, but her cells never died.

Henrietta's cells were the first human cells ever grown in culture to continue living. Grown in culture means cells are taken from where they are living, like a human body. Then the cells go to a lab so scientists can grow more of them to study.

Henrietta's cells were important to developing the polio vaccine. Polio was a deadly disease in the 20th century. Her cells also went on the first space missions to see what would happen to cells in zero gravity. Many scientists have used her cells for different types of advanced study.

## **Learning Henrietta's Story**

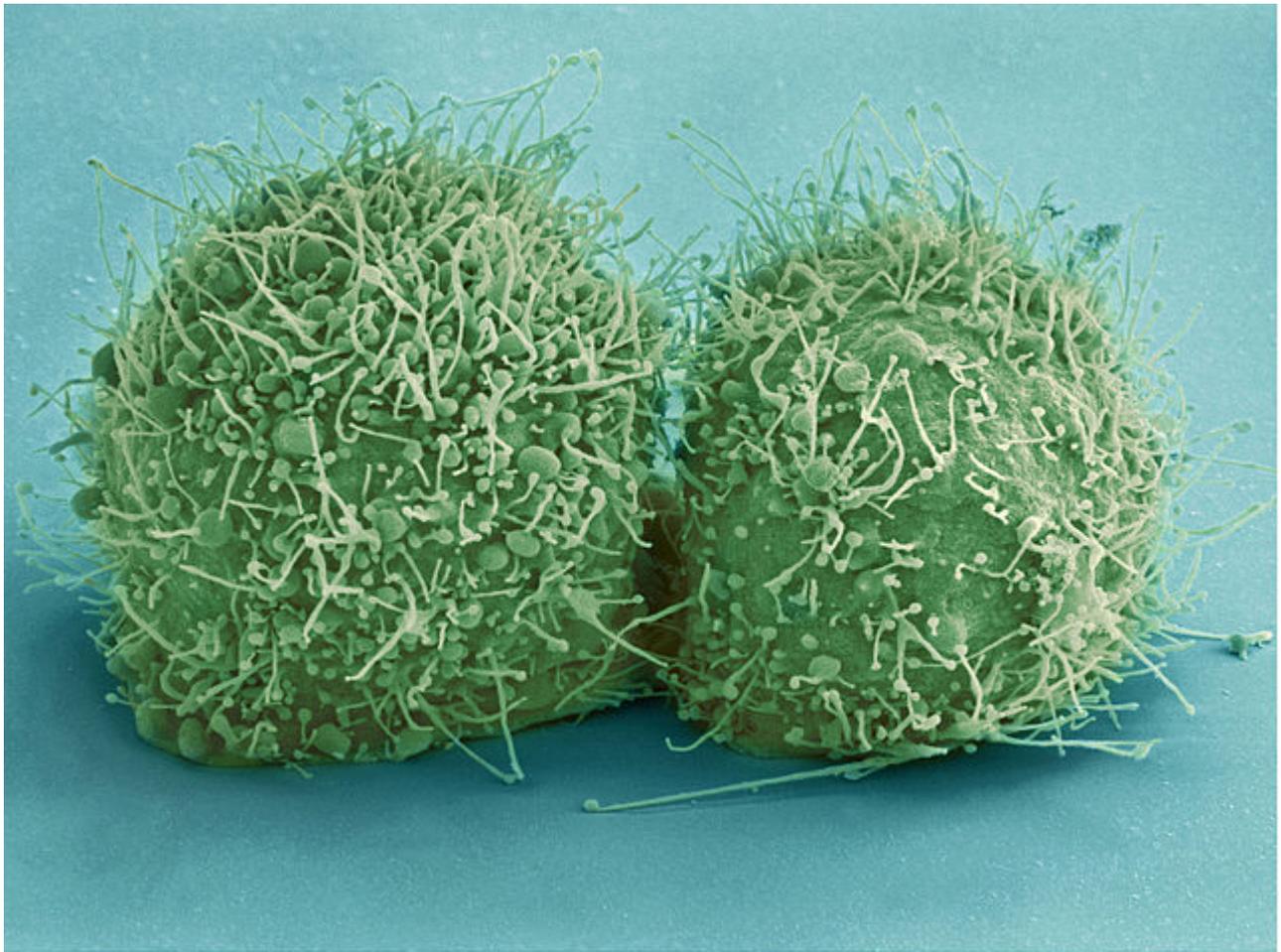
Before writing her book, Skloot first learned about Henrietta in 1988. Skloot was 16 and in a science class. The teacher knew Henrietta's real name and that she was black. But that's all he knew. When Skloot was in college, she decided to find Henrietta's family and write about them.

It took Skloot almost a year even to convince Henrietta's daughter, Deborah, to talk to her. Skloot went where Henrietta was raised in Virginia. Skloot tracked down Henrietta's cousins, then called Deborah and told her their stories.

This convinced Deborah to help Skloot learn more about Henrietta because Deborah wanted to know more, too. Deborah never knew her mother. She was a baby when Henrietta died and no one ever talked about Henrietta.

## **Finding Out HeLa Is Henrietta Lacks**

Twenty-five years after Henrietta died, a scientist discovered that many cells thought to be from other people were in fact HeLa cells. It turned out that HeLa cells could float on dust in the air and travel on unwashed hands into other cell cultures.



So, scientists tracked down Henrietta's relatives to take some samples from them. They wanted to use the family's DNA to make a map of Henrietta's genes. This would allow scientists to know which cells were HeLa and which weren't. It would begin to straighten out the contamination problem.

### **Lessons From The Book**

Much of science today revolves around using human cells of some kind. The people behind those samples are usually left out of the decision-making process.

Skloot hopes people don't think collecting and growing cells is bad. Medicine today depends on it. We would not have many tests, medicines and vaccines if it wasn't for this. Or, if it wasn't for Henrietta.