Review on *The Immortal Life of Henrietta Lacks*
by Rebecca Skloot

On the sixth page of Rebecca Skloot's nonfiction book, The Immortal Life of Henrietta Lacks, Skloot quotes a member of the family: "[does] the immortality of [my] mother's cells mean that [I] might live forever too[?]" For those of you who haven't heard of Henrietta Lacks, know that her cells are the reason for the polio vaccine and advances in chemotherapy, cloning, gene mapping, and vitro fertilization. She exists by way of her cells in almost every major laboratory in the world and has been "bought and sold by the billions"—all with her family unaware. When the family members did hear of the existence of HeLa cells, twenty-two years after Henrietta died of cervical cancer in 1951, they felt cheated. Corporations had made a major profit from the sale of HeLa cells by this time, "Hela" coming from the beginning of Henrietta Lacks's first and last name, and the cells had literally been to the moon and back. Henrietta's cells were the first to be made immortal, a fact that did not mean human life could be extended, but rather that a name was immortalized: HeLa. Skloot divides the book into three sections to guide us through the life and death of Henrietta and the effects of the immortality of the HeLa cells up to the year 2010, when the book was published.

Although the breakthrough in science did not mean that the fountain of youth had been discovered as headlines claimed in the early 1900's, the ability of HeLa cells to outlive any other cell it encounters is extraordinary. To understand the mechanics behind cell immortality, we have to focus on the ends of the "X" shaped chromosome. At each end of a chromosome strand, there is a telomere, a string of DNA that attracts proteins to form a protective cap. This protein cap prevents chromosomes from attaching to each other and from undergoing chromosomal damage that would result in the loss of genetic information (Telomere - What are Telomeres?). Although the concept of telomere DNA is somewhat new, the region is commonplace, existing in

most plants and animals “from amoeba to man” (The 2009 Nobel Prize in Physiology or Medicine - Press Release).

As we all know, before the cell can undergo cell division, short pieces of RNA help DNA polymerase duplicate the chromosome strands. But they fail to copy the entire length of each strand. The RNA pieces leave space for themselves in the cell instead of the telomere in its entirety; Lee Siegel compares it to “someone who paints himself into a corner and cannot paint the corner.” This degradation at the end of the chromosome, or the telomere, will lead to the discontinuing of cell division and continual aging or death of the cell. The length of the telomere correlates to the actual age of a person as well as the age of the cell. The older you are, the shorter your telomeres and the more in jeopardy your cells are. For example, at birth, you can have as many as 8,000 base pairs comprising your telomeres. This number can dwindle to about 1,500 base pairs in an elderly person (Siegel). Skloot likens the telomere tail to be like a ticking clock. However, scientists have observed that “some long-lived species like humans have telomeres that are much shorter than species like mice, which live only a few years” (Siegel). This indicates that the aging process is not controlled by the length of telomeres alone, but by several different factors.

There is one enzyme that can counteract telomere shortening. Telomerase repairs the telomere by providing a platform for the telomere to continue on. Telomerase exists in young cells to rejuvenate them until the supply of it runs out. According to the summary of the Nobel Prize in Physiology or Medicine 2009, “cancer cells have the ability to divide infinitely and yet preserve their telomeres.” They do this by maintaining increased telomerase activity, bypassing the Hayflick limit. Telomerase allows cancer cells such as HeLa to outlive any other healthy cell, so scientists did discover the fountain of youth for cells.

In addition to the scientific facts behind immortality that Skloot permeates the book with, there are also supernatural elements. Skloot repeatedly mentions that Henrietta may have control of circumstances from the afterlife. Deborah, for example, "believe[s] Henrietta's spirit lived on in her cells, controlling the life of anyone who crossed its path," including the author of the book, Skloot. Skloot supports this by giving the example of an editor who wanted to emit the story of the Lacks family. This "pissed off" Henrietta and the editor was consequently injured in a mysterious accident. Henrietta is said to even create storms and guide people to their destination. There is also the detail of "the most dangerous spirit," a "several-ton headless hog," that roamed Lacks Town years ago with no tail. We see Skloot's poetic voice when she further describes it by saying, "Links of broken chain dangled from its bloodstained neck, dragging along dirt roads and clanking as it walked."

The book attempts to give background on the family, life, science, and controversy surrounding the infamous HeLa cells. Skloot focuses mainly on the family of Henrietta, an aspect that most of the people involved in the growth of HeLa overlooked. This book is an attempt to help right the wrong done to the family by bringing awareness and donating some of its profits to the Henrietta Lacks Foundation, a foundation created by the author to help Lacks of future generations. The afterword of this book ends with a plea. Skloot quotes Sonny saying, he hopes the family gains some kind of compensation and/ or recognition of Henrietta by those who profited monetarily off of her cells. But the book itself deals with Henrietta before and after her death as well as the "blackness" that spread inside her.

Works Cited

"Telomere - What Are Telomeres?" Telomere - What Are Telomeres? N.p., n.d. Web. 22 Oct. 2013.

"The 2009 Nobel Prize in Physiology or Medicine - Press Release". Nobelprize.org. Nobel Media AB 2013. Web. 21 Oct 2013.

Siegel, Lee. "ARE TELOMERES THE KEY TO AGING AND CANCER?" Are Telomeres the Key to Aging and Cancer? The University of Utah, n.d. Web. 21 Oct. 2013.