Annotated Bibliography

Primary Sources:

Baltimore City Health Department, Bureau of Vital Statistics. *Henrietta Lacks Death Certificate*. Johns Hopkins Hospital, Baltimore, Maryland, 1951, Filed 2 Jun. 1953.

Lacks tragically died from her battle with cervical cancer, although it was not mentioned in her death certificate. Her family did not know her cells had been taken to conduct research which led to an ethical debate about informed consent and patient rights.

Curtis, Adam. *The Way of All Flesh.* British Broadcasting Corporation; Films for the Humanities and Sciences, 2007.

Dr. Gey believed that Lacks' cells would have the ability to cure cancer and went on television to talk about her cells without consent from her family. This video helps to show the ethical debates between medical research and informed consent and Lacks was temporarily forgotten by science.

***Dead Woman's Cancer Cells Provide Mystery.* 1974. Tucson Daily Citizen, https://www.newspapers.com/clip/10199866/tucson-daily-citizen/. Accessed 27 Jan. 2022.**

This newspaper article published in London explains the danger associated with HeLa cells and how they grew so rapidly they invaded other cells in laboratories. It goes into depth specifically about a trade of cells between the U.S. and Russia, and how the HeLa cells ended up contaminating Russian-based cancer research which raised suspicions.

***Dr. George Gey*. Ca. 1940. University of Pittsburgh, https://www.pittmag.pitt.edu/archive/mar2001/culture.html. Accessed 27 Jan. 2022.**

Dr. Gey was the first person to use the discovery of HeLa cells to study cancer using many unethical studies and conducted research without the permission of Lacks' family. Dr. Gey made outstanding medical breakthroughs specifically for findings of cancer, but it also brought light to the unethical behavior that was often used in laboratories.

***French Researchers Report in Science the Isolation of a Retrovirus that Might be Involved With AIDS.* 18 April. 1983. Science Insider. https://www.science.org/content/article/gathering-hivaids-pioneers-raw-memories-mix-current-conflicts. Accessed 29 Jan. 2022.**

An image from this article was used on our website to show the numerous medical advancements that Lacks' HeLa cells had. We felt that a timeline with visual aids would best portray the impacts that her cells had on modern medicine.

HeLa Cells*. 1951. *British Society for Immunology,
https://www.immunology.org/hela-cells-1951. Accessed 17 Jan. 2022.

What many doctors failed to do while analyzing Lacks' HeLa cells was putting the human connection between cells and research. We included an image of these cells to display what her cells actually looked like from a research standpoint.

***Henrietta and David Lacks*. Ca. 1945. Johns Hopkins Medicine,**
https://www.hopkinsmedicine.org/henriettalacks/. Accessed 17 Jan. 2022.

Henrietta is pictured standing next to her husband David, "Day," Lacks. We used this picture to show that the cells were part of an actual person and to highlight the ethical debate over HeLa cells.

***Henrietta Lacks.* Ca. 1940. Bridgeman Images,**
https://www.newscientist.com/article/2250449-genetic-privacy-we-must-learn-from-the-story-of-henrietta-lacks/. Accessed 27 Jan. 2022.

Henrietta Lacks and her family were taken advantage of for the sake of research and science, without even knowing it for decades. Her story allows the medical community to learn and grow in order to have ethical research practices in place to protect *all* patients.

***Henrietta Lacks*. Ca. 1940. The National Geographic.**
https://www.nationalgeographic.com/science/article/130816-henrietta-lacks-immortal-life-hela-cells-genome-rebecca-skloot-nih. Accessed 17 Jan 2022.

A photograph of Lacks is included on our home page to highlight her contribution to modern medicine. For decades, researchers failed to put a face to the name of HeLa cells – often forgetting about the human connection to the cells altogether.

***Henrietta Lacks Cells*. Ca. 1951. Biomol.**
https://www.biomol.com/resources/biomol-blog/henrietta-lacks-immortal-cells. Accessed 29 Jan. 2022.

Incorporating various images of Lacks' cells allowed us to show the actual cells that have caused so many ethical and medical debates and breakthroughs in modern medicine.

Many advancements would not have been found without the help of her cells in medical research.

***Jim Crow segregation.* 1943. Encyclopedia Britannica, https://www.britannica.com/event/Jim-Crow-law. Accessed 29 Jan. 2022.**

Jim Crow Laws played a large role in Lacks' limited access to medical care, especially affordable medical care. Lacks' family was poor for much of her life and Johns Hopkins was one of the only affordable hospitals that offered medical care to African-Americans.

Jones, Howard W. Jr. "Record of the First Physician to see Henrietta Lacks at the Johns Hopkins Hospital: History of the Beginning of the HeLa Cell Line." *American Journal of Obstetrics and Gynecology.* Jun. 1997.

The discovery by Dr. Howard Jones of Lacks' tumor was the first step in studying her cells and making the groundbreaking discovery of what they were capable of doing. This picture is included within our website because of Dr. Jones's impact on Lacks' life and how it paved the way for future medical findings.

Lacks, Henrietta. "Operation Permit." *Daily Mail*, Associated Newspapers Ltd. Accessed 4 Mar. 2018.

Henrietta Lacks signed a form of consent for doctors to operate and treat her cervical cancer. Lacks did not give permission for Johns Hopkins to take and use her cells in outside medical research. This image shows the ethical debate

***One Stage in the Preparation of the Rabies Vaccine: A Rabbit Brain on a Square of Muslin.* Ca. 1910. Pasteur Institute. https://www.historyofvaccines.org/content/articles/early-tissue-and-cell-culture-vaccine-development. Accessed 29 Jan. 2022.**

This image was incorporated on our timeline of the multiple contributions that Lacks' cells had on scientific breakthroughs and medical advancements. While Lacks' didn't willingly contribute her cells to be used in research, they have led to major scientific breakthroughs.

Rogers, Michael. "The Double-Edged Helix." *Rolling Stone,* 25 Mar. 1976.

This article published by *Rolling Stone* in 1976 shows both the negative and positive impacts that HeLa cells had on medical research. A primary magazine allows us to see different opinions on Lacks' HeLa cell breakthroughs in the 1970s.

Salmonella Typhimurium. **5 April. 2005. Britannica. https://www.britannica.com/science/Salmonella-typhimurium. Accessed 29 Jan. 2022.**

This image shows a close up, detailed view of salmonella cells. HeLa cells became a part of the research on salmonella cells in hopes of discovering new ways to stop the contraction of salmonella.

Syphilis Victims in US Study Went Untreated for 40 Year**. 1972. New York Times. https://www.nytimes.com/1972/07/26/archives/syphilis-victims-in-us-study-went-untreated-for-40-years-syphilis.html. Accessed 27 Jan. 2022.**

The Syphilis study on African-Americans led to a major distrust in medicine and doctors during this time. Henrietta, and other African Americans, often didn't seek medical attention due to a lack of quality medical resources as well.

The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research. [Bethesda, Md.]: The Commission, 1978.

The Belmont Report was one of the first forms of medical diplomacy as it created the Common Rule to protect the vulnerable in federal research studies. Henrietta lacks' unethical treatment of her cells was a catalyst in the need for regulations.

The Recovery Capsule for Korabl 2. **19 Aug. 1960. David Darling. https://www.daviddarling.info/encyclopedia/K/Korabl-Sputnik.html. Accessed 29 Jan. 2022.**

HeLa cells were the first cells to ever be put into space. Researchers determined that the cells actually grew faster in zero-gravity than on Earth helping researchers learn more about space biology.

Tuberculosis New Advancement. **Ca. 1970. Shine. http://shinestudio.com/projects/hela/. Accessed 29 Jan. 2022.**

Henrietta Lacks Cells changed the face of modern medicine as it rapidly evolved. In researching tuberculosis, it was found that her cells impacted the studies and furthermore led to new advancements for the tuberculosis vaccination.

"U-Polio Detection Methods to Aid in Prevention Plans," ***Minneapolis Star*****, 2 Nov. 1953. https://www.newspapers.com/clip/15751662/the-minneapolis-star/. Accessed 17 Jan. 2022.**

The image of this newspaper article from 1953 explained the effects HeLa cells had on the polio virus: the cells reproduced easily and showed damage towards all three types of polio after only coming in contact in 12-72 hours. The funding towards this research and production of HeLa cell testing was mentioned as well.

Secondary Sources:

A HeLa Cancer Cell Dividing. **Ca. 2020. Smithsonian Magazine. https://www.smithsonianmag.com/science-nature/henrietta-lacks-immortal-cells-6421299/. Accessed 12 Feb. 2022.**

This image shows the exact process of Henrietta Lacks cells and their ability to multiply. The division and duplication of human cells has been impossible until medical researchers found groundbreaking discoveries on her cells.

A HeLa Cell Displaying an Internalized Chip. **Ca. 2010. Nanowerk Spotlight. https://www.nanowerk.com/spotlight/spotid=31406.php. Accessed 29 Jan. 2022.**

HeLa cells are still being used today in scientific research, which we included on our timeline of the impacts of her cells. Many of her impacts are hard to comprehend, such as in this image of nanotechnology.

Butanis, Benjamin. "The Legacy of Henrietta Lacks." ***Johns Hopkins Medicine*****, The Johns Hopkins University, 8 Nov. 2021, https://www.hopkinsmedicine.org/henriettalacks/. Accessed 17 Jan. 2022.**

In the preliminary round of our research, we used this website to gather a basic overview of Henrietta Lacks and her story. A video included on this source gave a timeline of the many contributions that Lacks cells made in advancing medicine.

Etheredge, Laura. "Henrietta Lacks." ***Encyclopædia Britannica*****, Encyclopædia Britannica, Inc., 22 Apr. 2010, https://www.britannica.com/biography/Henrietta-Lacks. Accessed 17 Jan 2022.**

This source provided us with a basic overview of Henrietta Lacks life and legacy. We used this source in our initial research to get a better understanding of how we wanted to approach our project and research.

"HeLa Cell Lines." ***Washington State University,*** **Washington State University, https://biosafety.wsu.edu/hela-cell-lines/. Accessed 22 Jan. 2022.**

Due to the fast growth rate of HeLa cells, there were many cases of cross contamination as they began to damage other cells. This source provided us with the risk of HeLa cells and how to manage them and take precautions. It gave us a better understanding of the science behind these cells and showed just how amazing and fast spreading they were.

Kadir, Nelson. *Henrietta Lacks (HeLa): The Mother of Modern Medicine*. 2017. National Museum of African American History & Culture, https://nmaahc.si.edu/object/nmaahc_2018.25. Accessed 17 Jan. 2022.

In this oil painting of Lacks, the artist placed Lacks hands near her womb to indicate the place in which her 'immortal cells' were discovered, the Bible to emphasize her strong faith, the floral pattern of her clothing representing cells, and the pearl necklace to represent the cancer that she battled.

Jackson, Noel et al. "Vessel for Collective Progress: the use of HeLa cells in COVID-19 research." *SITN Boston*, The Harvard University, https://sitn.hms.harvard.edu/flash/2020/vessels-for-collective-progress-the-use-of-hela-cells-in-covid-19-research/. Accessed 17 Jan. 2022.

Henrietta Lacks HeLa cells continue to make an impact in modern medicine today in the research of COVID-19 and COVID-19 vaccines. This article explains exactly how Lacks' cells were used in studying the COVID-19 virus which has greatly impacted our world today showing the profound legacy that Lacks HeLa cells have on modern medicine.

***NIH Director Francis S. Collins, Ph.D., M.D.; Jeri Lacks-Whye; and David Lacks, Jr.* 28 Sept. 2017. National Cancer Institute, https://ncifrederick.cancer.gov/about/theposter/content/nih%E2%80%93lacks-family-partnership-gives-henrietta-lacks%E2%80%99-descendants-seat-table. Accessed 2 Feb. 2022.**

In order to try to right the wrongs caused to the Lacks' family, members of the family were put on a board that oversees the use of HeLa cells in research studies. This image is used to portray some of the new changes toward ethical diplomacy in medical research.

"Significant Research Advances Enabled by Hela Cells." *National Institutes of Health*, U.S. Department of Health and Human Services, https://osp.od.nih.gov/scientific-sharing/hela-cells-timeline/. Accessed 17 Jan. 2021.

This source gives a simple timeline and overview of the impact of HeLa cells from when they were first discovered in 1951. We used this information in our project to emphasize the impact of HeLa cells and how they are still relevant.

Skloot, Rebecca. *The Immortal Life of Henrietta Lacks*. Crown Publishers, Random House Inc. 2010

Henrietta Lacks' story remained almost forgotten until Rebecca Skloot's book was published about her legacy and family. Skloot's novel and HBO's film draw attention to the unethical use of Lacks' cells and how this went on to affect her family even to this

day. This source not only gave us a much deeper understanding of Lacks' life and impact but also led us to more primary and secondary sources.

Subspecies of HeLa Cells. **Ca. 2020. Smithsonian Magazine. https://www.smithsonianmag.com/science-nature/henrietta-lacks-immortal-cells-6421299/. Accessed 12 Feb. 2022.**

Lacks' cells are shown at the microscopic level which researchers have been studying since the discovery of her immortal cells. Dr. Gey was the leading scientist in discovering and studying HeLa cells which is why we included images of her cells when we explain the discovery made by Gey.

The Immortal Life of Henrietta Lacks. **Directed by George C. Wolfe, performances by Oprah Winfrey and Rose Byrne, Harpo Films, 2017. Accessed 22 Jan. 2022.**

This film stars Oprah Winfrey who plays the role of Henrietta Lacks daughter, Deborah, and also stars Rose Byrne who plays the role of Rebecca Skloot, a journalist who wrote "the Immortal Life of Henrietta Lacks." The film follows the storyline of Skloot's process of writing her book and building close relationships with Henrietta's family, highlighting the unethical work of researchers and how that affected and still affects, the Lacks family.

The Metaphase Stage of a Human HeLa Cell Division. **Ca. 2020. Smithsonian Magazine. https://www.smithsonianmag.com/science-nature/henrietta-lacks-immortal-cells-6421299/. Accessed 12 Feb. 2022.**

Lacks' cells were the only cells to be found to not only live outside the body, but be able rapidly go through cell division and multiply. We felt that it was important to include images of HeLa cells at the microscopic level due to the fact that her cells alone have made huge medical advancements – allowing for modern medicine to be where it is today.

Zielinski, Sarah. "Henrietta Lacks' 'Immortal' Cells." ***Smithsonian.com*****, Smithsonian Institution, 22 Jan. 2010, https://www.smithsonianmag.com/science-nature/henrietta-lacks-immortal-cells-6421299/. Accessed 17 Jan. 2022.**

Rebecca Skloot is a journalist who wrote the novel "The Immortal Life of Henrietta Lacks." This article explains her experience through writing her book and the information she learned along the way and includeded multiple photos of HeLa cells in different forms and processes.