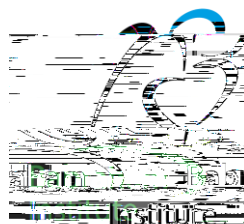

HeLa100: The history and ethics of HeLa cells

Elizabeth Wynn

She/her

8/10/2020



Henrietta Lacks

August 1, 1920 – October 4, 1951

Born in Virginia

Worked as a tobacco farmer from a young age

Married in 1941 and moved to Connecticut

Had 5 children with her husband David Lacks

Went to John Hopkins Hospital due to a 'knot' in her womb

Diagnosed with cervical cancer

While receiving treatment, her doctor took tumour samples which went on to become the HeLa cell line



HeLa cell line

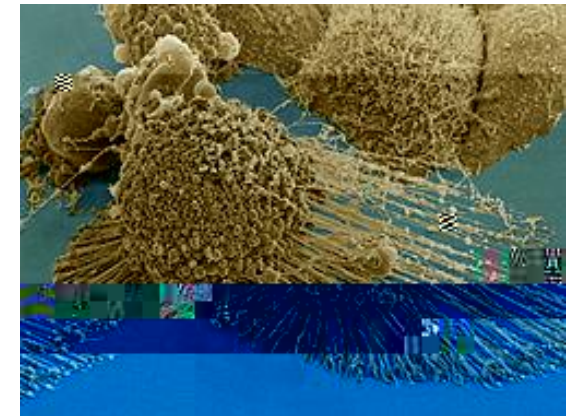
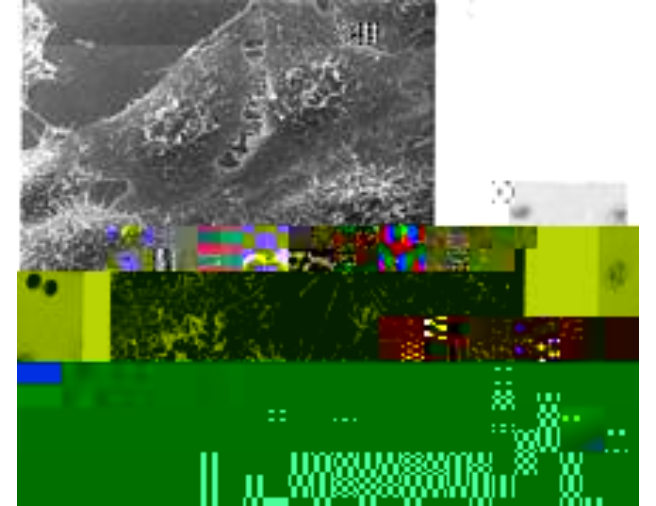
Developed by George Otto Gey and Mary Kubicek

The first immortal human cell line

Widely distributed to aid in research

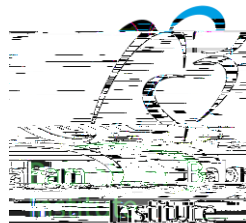
- Polio vaccine testing
- The link between HPV and cervical cancer
- Effective techniques for counting chromosomes
- Effects of zero gravity on cells
- Cancer, infection, toxins, ageing

Over 11,000 patents and 110,000 papers
reference HeLa cells



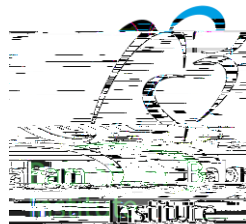
Informed consent

- Ca. 1910-70, researchers would regularly obtain tissue samples from surgeons
- Consent for the use of tissue samples was not considered necessary by researchers or the public
 - " Human embryos ending their existence at London hospitals are providing scientists with the means of making a vaccine against the common cold." , July 26, 1961.
- Backlash against abortion legalisation and unethical research in the 70s
 - In the 1950s and 60s, Chester M Southam injected HeLa cells into patients' skin without their informed consent
- Increased genetic understanding
- Commercialisation of cells
 -



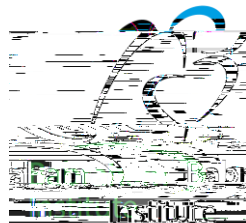
Racism in medical research

- J Marion Sims - father of modern



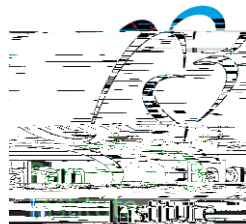
The Lacks family

- Poor communication from researchers
 - Requests for blood samples in the 1970s shocked and distressed family members
- Privacy concerns
 - Henrietta Lacks' full name was released on George Gey's death without consulting her family
 - In 2013, researchers published the whole HeLa cell genome
- Input into research
 - Since 2013, anyone who wants to use HeLa cells on an NIH grant needs approval from a committee including 2 members of the Lacks family
- Lack of compensation
 - HeLa cells are a huge industry and many of her descendants lack access to health care

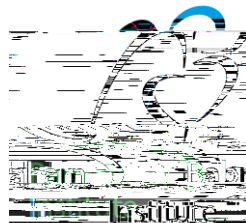


What should scientists do now?

- Use alternatives
- Compensation
- Acknowledgement



Discussion time!



Further reading

