Henrietta Lacks: HeLa Cells

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Why in News?

Recently, the **Henrietta Lacks'** family settled a lawsuit against a biotech company accused of profiting from her cells without her consent, which revolutionized medicine.

Who was Henrietta Lacks and Why are Her Cells/HeLa Cells Important?

- Henrietta Lacks was an **African-American woman** who died of **cervical cancer** in 1951 at the age of 31.
- Without her knowledge or consent, doctors took a **sample of her tumour** and sent it to a lab, where it was discovered that **her cells could grow indefinitely in culture.**
- Her cells, known as **HeLa cells,** became the **first immortalized human cell line** and one of the **most widely used in biomedical research.**
- HeLa cells have contributed to many scientific breakthroughs, such as the development of the **polio vaccine**, **gene mapping**, **cancer treatment**, **Acquired Immuno Deficiency Syndrome (AIDS) research,** cloning, stem cell studies, and Covid-19 vaccines.
- The **World Health Organization (WHO)** awarded Henrietta Lacks **posthumously with a WHO Director-General's award** on October 13, 2021. The award acknowledges her story, which is one of **inequity, and recognizes her world-changing legacy to science and health.**
    - The WHO Director-General's Award is a prestigious recognition given by the WHO to **individuals or groups who have made outstanding contributions to advancing global health,** demonstrated leadership and commitment to regional health issues, and embodied lifelong dedication, relentless advocacy, and selfless service to humanity.

Cervical Cancer

- Cervical cancer is cancer that starts in the **cells of the cervix.** The cervix is the **lower, narrow end of the uterus (womb).**
    - The cervix connects the **uterus to the vagina (birth canal).**
- Cervical cancer usually develops slowly over time. Before cancer appears in the cervix, the **cells of the cervix go through changes known as dysplasia**, in which **abnormal cells begin to appear in the cervical tissue.** Over time, if not destroyed or removed, the **abnormal cells may become cancer cells** and start to grow and spread more deeply into the cervix and to surrounding areas.
- Almost all **cervical cancer cases (99%) are linked to infection with high-risk Human papillomavirus (HPV),** an extremely common virus transmitted through sexual contact.