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 <u>cervical cancer</u> 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, <u>Acquired Immuno Deficiency Syndrome</u> (<u>AIDS</u>) research, cloning, stem cell studies, and Covid-19 vaccines.
- The <u>World Health Organization (WHO)</u> 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.

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