

## Hela Cells and HIV Treatment

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### ABSTRACT

Hela cells are the cancer cells extracted from Lacks family and these are cancer lineage cells and has overactive telomerase which prevents the shortening of telomeres. and cells continue to divide so in this we discuss how Hela cells can be used in cure of AIDS.

**Keywords:** Nuclear medicine, Hela LV, Hela CD4 cells, DNA forward rolling

### HELA CELLS ORIGIN

These cells originate from the cervical adenoma of Lack's family and has the overactive telomerase which doesn't allow shortening of telomeres and continuous division of the cell and has an immortality [1].

### OBEYS THE DNA ARCHITECTURE THEORY

It is the special case in which DNA has overactive telomerase and prevents the shortening of telomeres and it act as a time loop and cell never ages and divides and continuous cell division occur in this DNA act as a time triggers and triggers continuous division of cell. Each cell replicates from the original cells and hence explain the reason for the no infection of HIV virus infections or struggle for infecting cell for the HIV virus (as protein of attachment is mutated and division of cell is fast).

### HIV VIRUS STRUGGLE TO INFECT THE HELA LV AND HELA CD CELLS OR ANY HELA CELLS

HIV virus struggle to infect the Hela cells due to following reasons:

- 1) It has the mutated chromosomes it has 76 to 80 chromosomes as compared to normal human cells [2].
- 2) It has overactive telomerase which prevents shortening of telomeres and any other mutations inhibits the integration of the HIV RNA to integrate with DNA [3]
- 3) Modified protein and Mutated protein don't allow virus to attach and enter the cells [4].

### FIGURES OF HELA CELLS (FIGURES 1-4)

#### HELA CELLS LVCD

These are modified CD4 T lymphocytes which constitutes the Hela cells properties that is over active Telomerase enzyme and immortality raised from bioengineering.

These cells are least infected by HIV as they contain the modified protein and prevents the attachment of the HIV to it and also can carry HIV without symptoms as store the HIV.

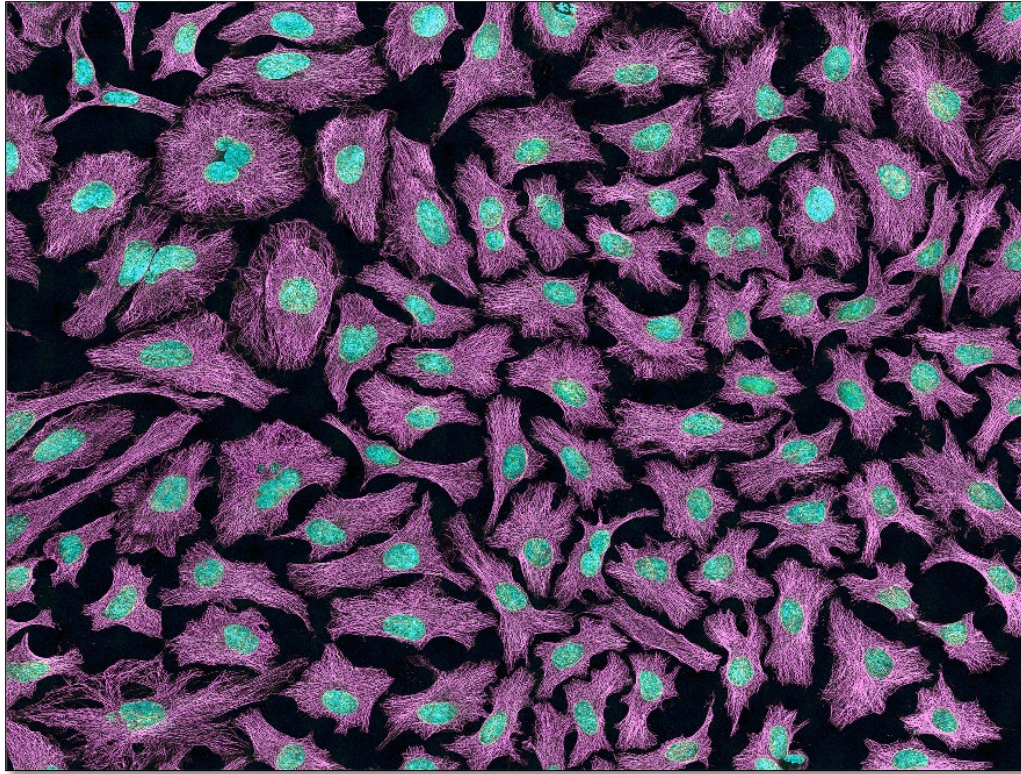
#### HELA CELLS TREATMENT OF HIV [AIDS]?

Yes, their cell gene can be used to treat the HIV virus as they can modify the protein of The CD4 cells which HIV infects and helps to prevent The HIV and AIDS and even can be used in the treatment of AIDS.

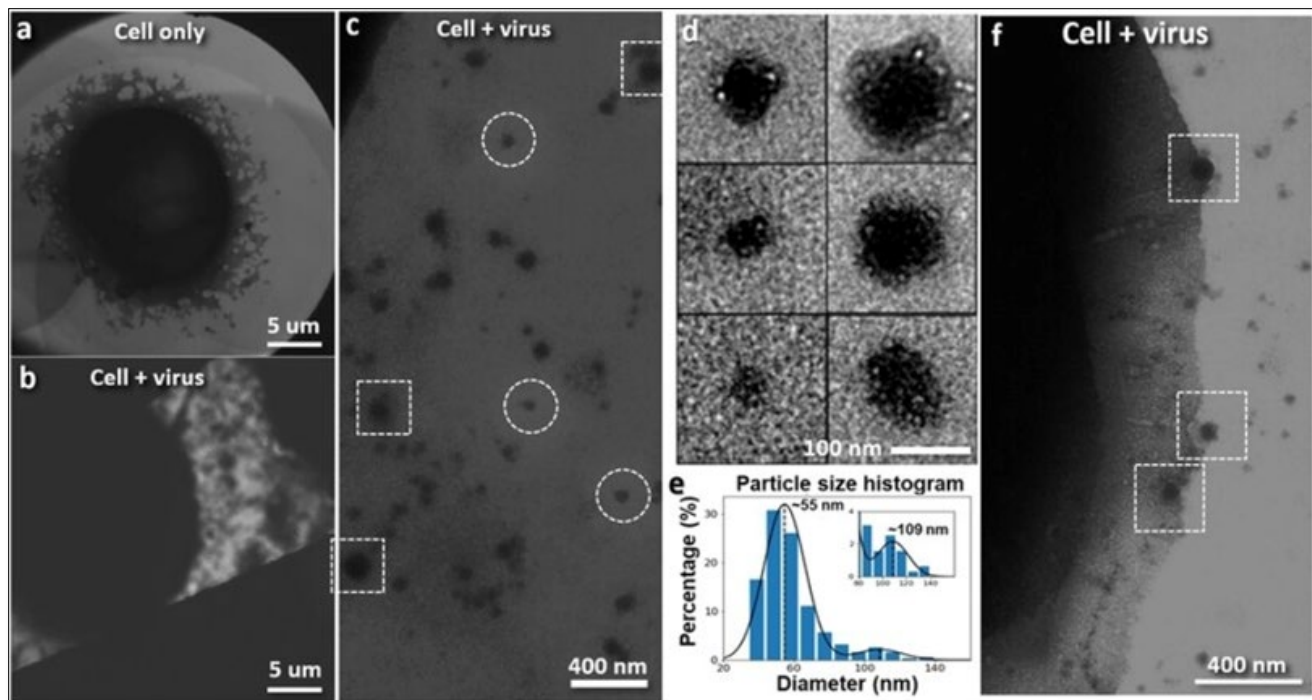
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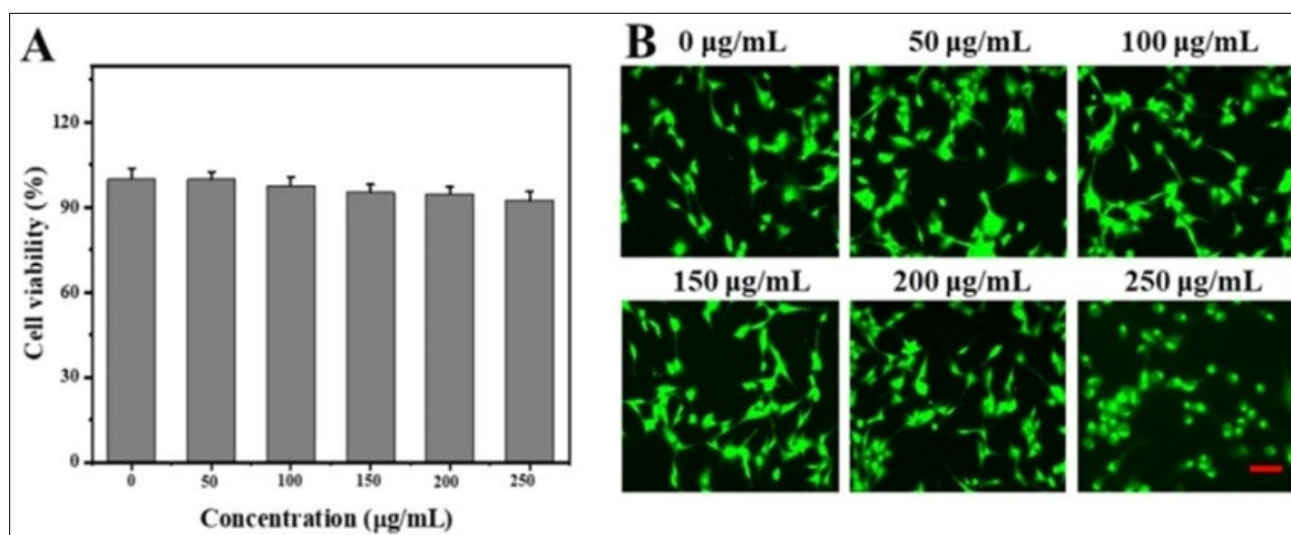


**Figure 1.** This is the immunofluorescent image of HeLa cells these are basically spindle in the shape and blue color shows the nuclear material in the cells and overactive portion can be seen by green color [5].

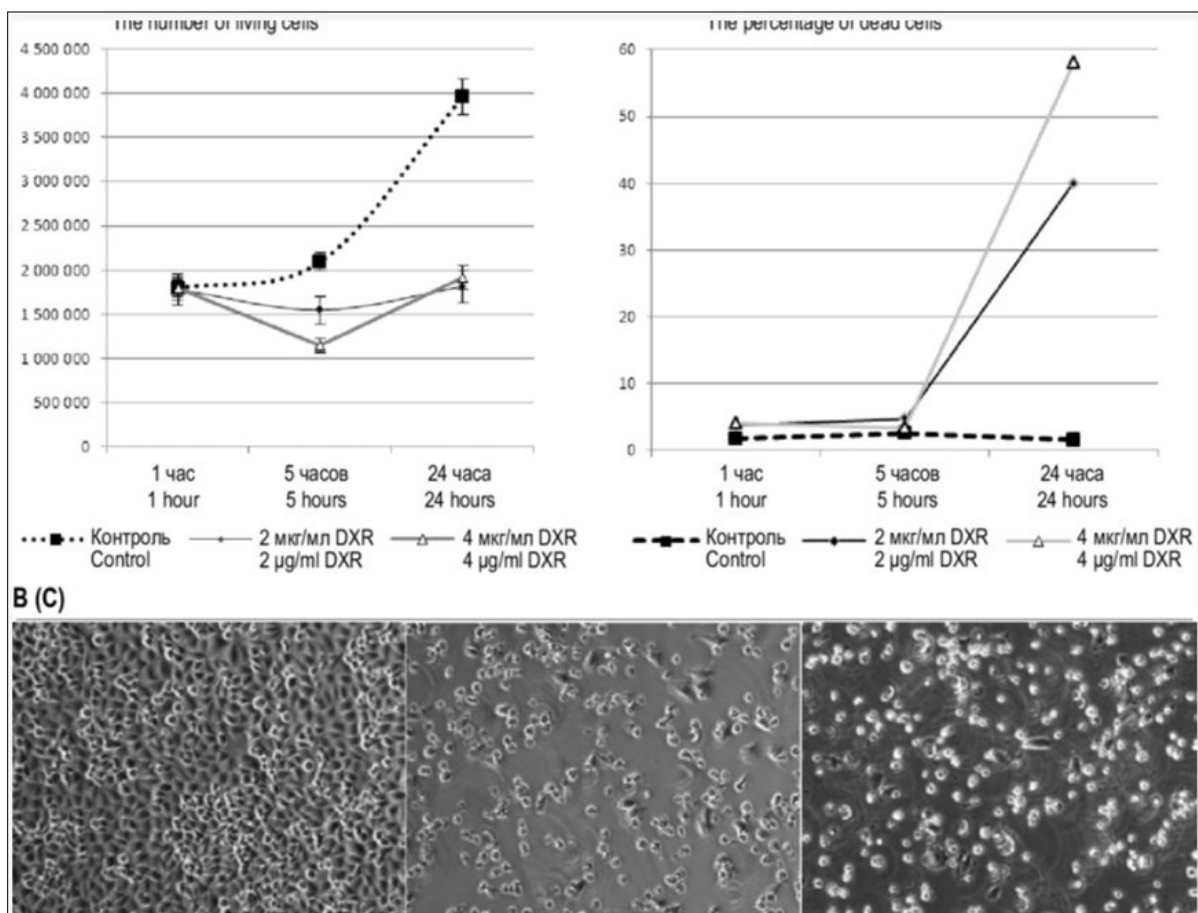


**Figure 2.** This shows the liquid phase TME image of the HeLa cells and the cells can be seen on the 400-um grid on the culture media and the histogram shows the growth of the HeLa cells viral antigen is taken for the growth of the HeLa cells for growth.





**Figure 3.** This shows the viability of HeLa cells after the LCD incubation at varying concentration for 48 h the graph shows the concentration of LCD at x axis and viability of cell at y axis and fluorescent microscopic figure is shown along with the graph.



**Figure 4.** This shows the division of the HeLa cells at 1 h, 5 h and 24 h and tells about the how fast HeLa cells divide and shows the division of the HeLa cells on graph and microscopic figures are also shown.

## HeLa cells can be used in the formation of vaccine of HIV virus

### HIV virus vaccine development

**Aim:** To develop the AIDS vaccine (trial should be done).

#### Procedure:

- 1) HeLa cells LVCD should be taken and infected by HIV and should be watched under microscope
- 2) Modified protein formed by CD4 T lymphocytes should be taken from the HeLa cells
- 3) Immune cells formed by HeLa cells (new cells) should be given to small birds and animal who doesn't have HIV and should be crossed checked by infecting them if result comes negative (success)

### Further trial should be continued

**Aim:** To develop treatment of AIDS

#### Procedure:

- 1) HeLa LVCD should infect with HIV and the gene should be taken from them which prevent them from infection from new cells and insert them in monoclonal antibody formed from the HIV resistance gene.
- 2) Should continue trials in the small group first by injecting them. Those who are HIV positive check results every week.
- 3) Than continue further trials.

## DISCUSSION

In this research we discussed about the HeLa cells their origin and how it is the special case of DNA architecture theory and the HeLa LVCD cells and also how they are effective against HIV and how they can be used in the treatment of The AIDs and any virus and also discussed the development of the vaccine of the HIV and also about the origin of these HeLa cells.

## CONCLUSION

HeLa cells can be used in the development of any virus vaccine and treatment but trial should carry out for them to make vaccine and treatment.

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