BBC LEARNING ENGLISH

6 Minute English

The woman whose cells never die

This is not a word-for-word transcript

Rob
Hello. This is 6 Minute English from BBC Learning English. I'm Rob.

Georgina
And I'm Georgina.

Rob
What do Vincent Van Gogh and Galileo Galilei have in common, Georgina?

Georgina
Hmm… their first name and last names both start with the same letter?

Rob
Well, that's true… but another similarity is their amazing contributions – to art and science - were only recognised after their death.

Georgina
I know another person whose huge contribution to science went unrecognised during her lifetime, Rob, but unlike Van Gogh or Galileo, you probably haven't heard of her. She's the subject of this programme.

Rob
Henrietta Lacks was a young, black, American mother who died of cancer in Baltimore in 1951. Although she never consented to her tissues being used for medical research, doctors at the time found her cells to have an extraordinary ability to replace themselves endlessly.

Georgina
Named 'HeLa cells' after her initials, Henrietta Lacks' tissue helped make possible all sorts of medical breakthroughs, from the polio vaccine to cancer drugs, to HIV and IVF treatments.

Rob
Born one hundred years ago, in 1920, the great-great-granddaughter of slaves, Henrietta and her cells continue to provide medical discoveries to this day…

Georgina
…most recently, of course, in the race for a coronavirus vaccine.

Rob
But before we go on, Georgina, it's time for my quiz question. I mentioned that Henrietta Lacks was born one hundred years ago, but do you know what other medical breakthrough happened in 1921? Was it:

a) the discovery of insulin?,
b) the discovery of penicillin?, or,
c) the discovery of vitamin E?

Georgina
I'll say, a) the discovery of insulin.

Rob
OK, Georgina, we'll find out if that's right later on. Now, it was Henrietta's biography by science writer, Rebecca Skloot, that brought her remarkable story to the world's attention a decade ago.

Georgina
Here is Rebecca Skloot, explaining Henrietta's importance to BBC World Service programme, The Forum:

Rebecca Skloot
So much of science is based on growing cells in culture which started with her cells. **In vitro fertilization** – that started with the ability to grow embryos in culture which you can do in part thanks to her cells so the list just goes on and on, and right now people are often asking how are HeLa cells helping with Covid. […] Scientists worked that out very quickly using her cells… they **figured out** what the receptor looks like and they did the same thing with HIV… so her cells are just this incredible **workhorse** that is at the base of so much science.

Rob
Doctors used Henrietta's cells to **figure out** – or understand, how cells reproduce and divide – knowledge that was vital in developing **in vitro fertilization**, or IVF, a technique for women who cannot become pregnant naturally, in which an egg is fertilized outside the body.

Georgina
Our bodies are made of millions and millions of cells and to understand how they work we need to grow them in a lab. No-one had succeeded in doing this until Henrietta's extraordinary cells which just grew and grew.

Rob
This resulted not only in new fertility treatments, but later in AIDS and cancer breakthroughs, which is why Rebecca refers to HeLa cells as a **workhorse**, meaning someone who does a lot of work.

Georgina
But perhaps Henrietta's greatest legacy of all was the vaccine for polio. Here's professor of genetics, Sir John Burn, talking to BBC World Service's, The Forum:

Sir John Burn
Henrietta would have particularly liked the announcement this year that polio vaccine had led to the eradication of polio in Africa – so the **centenary** of her birth it seems rather symbolic that her **unwitting** contribution to medicine eventually eradicated that **scourge** of mankind.

Georgina
John Burn calls polio a **scourge**, meaning something causing much pain and suffering.

Rob
Henrietta's role in eradicating this terrible disease is all the more remarkable as she was never asked permission to use her cells for research, and it's taken decades for the Lacks family to win their grandmother the recognition she deserves.

Georgina
That's why John Burn calls Henrietta's contribution **unwitting** – it was made without her knowledge or consent.

Rob
And with the eyes of the world now focused on vaccines for the coronavirus, this year is a symbolic time to celebrate her **centenary** - the one hundredth anniversary of an important event.

Georgina
Henrietta Lacks - a remarkable woman whose name is finally making its way into the history books. But something else remarkable happened one hundred years ago, didn't it, Rob?

Rob
Ah yes, you mean my quiz question. I asked you which important medical breakthrough occurred one hundred years ago, in 1921.

Georgina
I said, a) the discovery of insulin.

Rob
Which was… the correct answer! Discovered by Canadian doctor Frederick Banting, insulin saved the lives of millions of diabetics.

Georgina
And on that healthy note, let's recap the vocabulary from this programme, starting with **in vitro fertilization**, or IVF – a medical technique for women who cannot become pregnant naturally.

Rob
Henrietta's HeLa cells helped doctors **figure out** - or understand - a lot about how cells grow and led to so many medical discoveries we might call them a **workhorse** – something which works extremely hard.

Georgina
A **scourge** means something that causes much pain and suffering, like the terrible diseases which Henrietta's **unwitting**, or unknowing, contribution helped eradicate.

Rob
Making 2021 a year of hope and the perfect time to celebrate the **centenary** of her birth – its one hundredth anniversary!

Georgina
We hope this upbeat programme has been just what the doctor ordered.

Rob
Remember to join us again soon at 6 Minute English. Bye for now!

Georgina
Goodbye!

VOCABULARY

in vitro fertilization
technique for women who cannot become pregnant naturally in which an egg is fertilized outside her body and the resulting embryo replaced in her womb

figure out
understand or solve something; work out

workhorse
someone who does a large amount work, especially dull or routine work

scourge
something that causes much trouble or suffering

unwitting
done without knowing or planning

centenary
the 100th anniversary of an important event