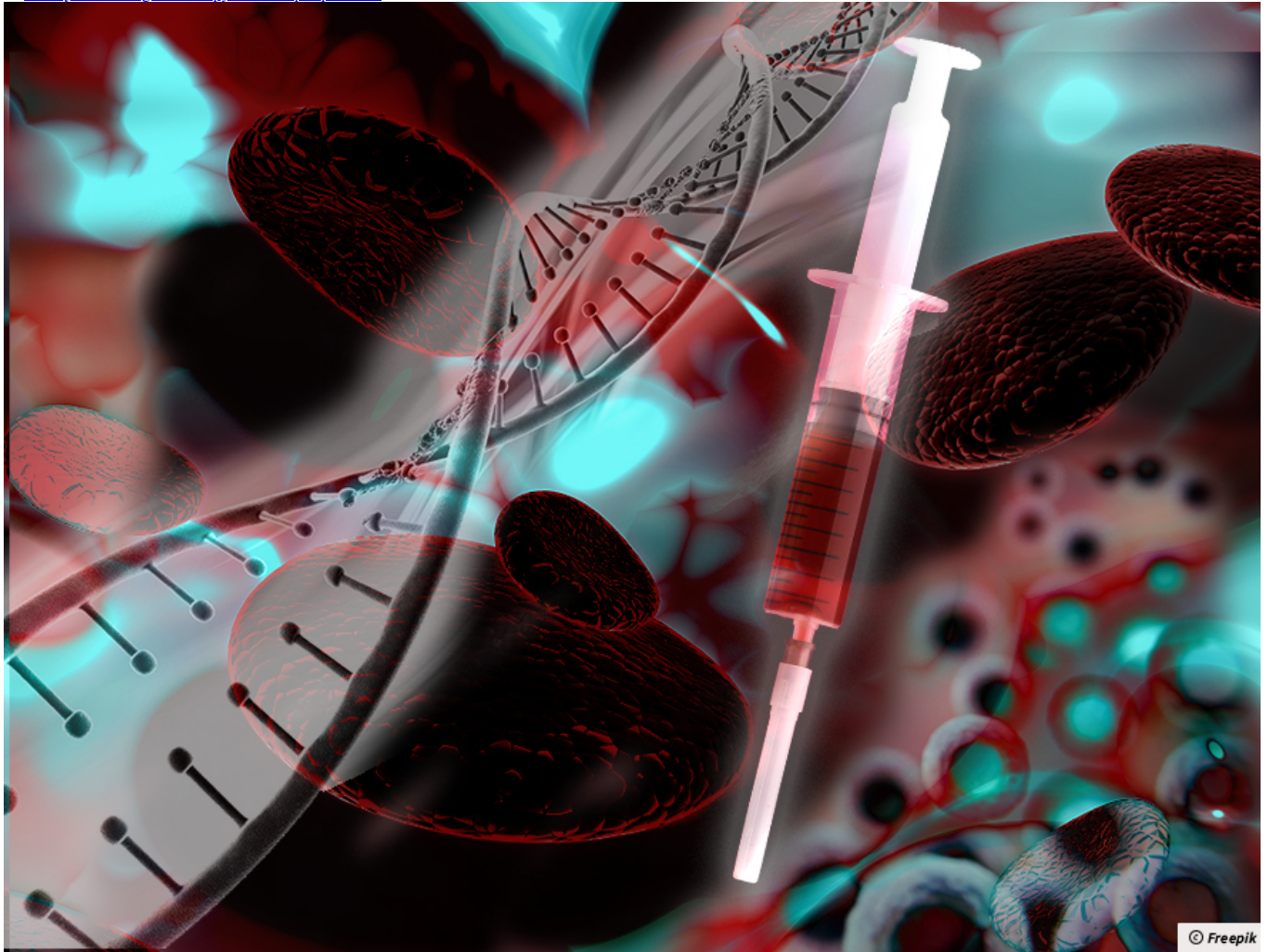


UK gene therapy at £1.6m per patient

[D thedaily.co.uk/uk-gene-therapy-at-1-6m-per-patient-4](https://www.thedaily.co.uk/uk-gene-therapy-at-1-6m-per-patient-4) 8 August 2024



Historic: NHS patients will be among the first in the world to be treated with gene-editing therapy. Kirthana Balachandran will be one of them, she has needed a blood transfusion every three weeks since birth to keep her alive.

Is this a dangerous path? A huge breakthrough could change the lives of people with certain blood disorders. But some worry about the medical and moral side effects.

What's happening?

When she was just three months old, doctors told Kirthana Balachandran's family that she had beta thalassaemia, a blood **disease** that leaves people tired and **weak**. Every three to five weeks she has to **inject** blood.

But now there might be a cure. Britain's health service has approved a new treatment.

Find out more

The new treatment is a type of **gene**-editing treatment. Gene therapy removes the genetic problem that causes illnesses.

The treatment will use a technique called **CRISPR**. A pair of very tiny scissors will be used to change the genes that do not work.

Doctors have already seen success, Abdul-Qadeer Akhtar took part in tests to make sure that the treatment works and is safe. Now, he is much healthier than before and is able to do things that he could not do before.

But others are worried. Gene therapy is very **expensive**. One treatment can cost around £1.6m. In some countries, it would mean that only very rich people would be able to pay

for it.

Others fear that scientists could use gene therapy to do more than just remove disease in the future. Some say that scientists could edit babies' genes to make them stronger and smarter than others. They even talk about super-strong soldiers who could run on four hours of sleep and feel very little pain.

Is this a dangerous path?

Some say

Yes! Gene editing can do some good. But there are also risks. Scientists could use gene therapy to make humans that are far stronger than people today.

Others think

No! Scientists have always been able to do **evil** things with their inventions. But with strong laws, we can use these inventions for good without any risk of harm.

FOR YOUR SUMMER READING CHALLENGE CLUE GO TO STEP SIX IN THE SIX STEPS TO DISCOVERY BELOW.

Six steps to discovery

1. Connect

How do you feel about this story? - If you or a friend had an illness, would you agree to gene editing? Why or why not?

Some people say

"Pride is at the bottom of all great mistakes."

John Ruskin (1819 – 1900), English art historian

Empty heading

What do you think?

2. Wonder

What questions do you have? - For example: Who will be able to have the new treatment? Who will decide who gets it?

3. Investigate

What are the facts? - Pick out one thing we know for certain and one thing we cannot say for sure.

4. Construct

What is your point of view? - A scientist offers to change your genes so you need to sleep less. Do you take up the offer?

5. Express

What do others believe? - Do you think scientists should continue to work on gene editing? Discuss as a class.

6. Reflect

What might happen next? - What C describes a new genetic editing technique? Download your challenge entry form [here](#) and fill in the answers to the clues.

Glossary

Disease - An illness or sickness.

Weak - Not strong.

Inject - To use a needle and small tube to put a liquid such as a drug into a person's body.

Gene - A gene is the basic unit of heredity.

CRISPR - CRISPR-Cas9 allows scientists to remove, add or alter sections of DNA with ease and simplicity.

Expensive - Costs a lot of money.

Evil - Very bad or morally wrong.