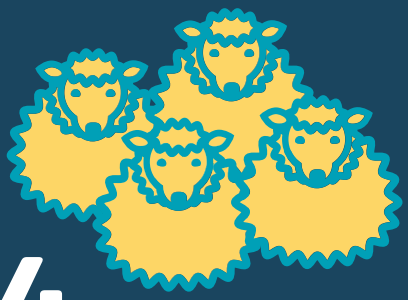
National Museums Scotland

Dolly the Sheep and the Science of Cloning

5 tactile interactives

1 superstar sheep

1 huge interactive genome

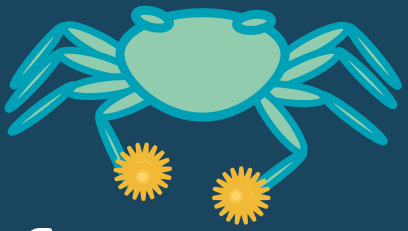


4 cloned ‘sister’ sheep

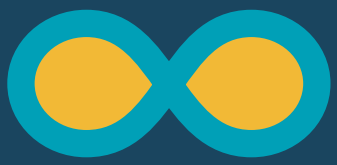
6 digital interactives

4 ethical debates

? Touring partners



1 cloning crab



Endless possible futures

Will you host Dolly?

Dolly the Sheep
and the Science of Cloning

National Museums Scotland is seeking hosting partners for a landmark turn-key touring exhibition. Dolly the Sheep, the first mammal ever to be cloned from an adult cell, is an icon of modern scientific achievement – and she is going on tour!

Affectionately named after the country music legend Dolly Parton, Dolly caused excitement and controversy among both scientists and the public when her birth was revealed in 1997. She made global headlines, sparking a media frenzy and a furious debate around the ethics of cloning. But how much is really understood about Dolly's story and significance? How and why do you go about cloning a sheep, and what is Dolly's legacy today?

Invite your visitors to explore this extraordinary tale of human endeavour, explore cloning in the natural world as well as in the lab, and consider what use this science could have today in this highly interactive family exhibition – all whilst meeting the most famous sheep in history.

Exhibition sections

A world first

On Saturday 22 February 1997, a scientific breakthrough was revealed to the world. Dolly the sheep, the first mammal to be successfully cloned from an adult cell, hit the headlines for the first time. The visitor journey begins by taking us back to this pivotal moment of global excitement, shock and anxiety about the future of biotechnology as a superstar is born.

The manual of life

Cloning a living thing starts with understanding the genome – the biological manual of life that shapes traits such as height, eye-colour and even susceptibility to certain diseases. A large-scale digital interactive will present this complex idea as a giant library of data, giving a sense of the vast scale of information held within a single human genome as visitors explore the code held within the building blocks that make up their own bodies and those of every living thing.

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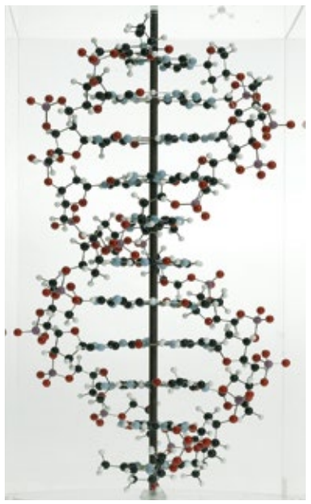
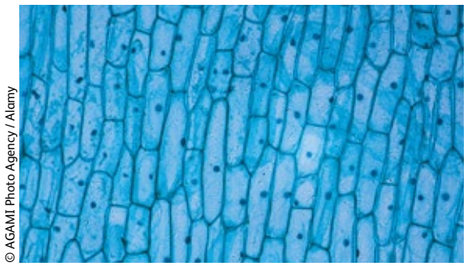


Clones in the natural world

Clones are not just a human invention. This section explores clones in the natural world – from the identical siblings of animals such as the nine-banded armadillo, to those that reproduce asexually such as the Komodo dragon – with taxidermy, models, casts and large-scale immersive projections.

Clones in the lab

The interactive hub of the exhibition will present a lab-like, hands-on experience. Visitors will be able to explore the science of cloning through a collection of digital and tactile interactives experimenting with nuclear transfer, gene editing and viewing microscopes.



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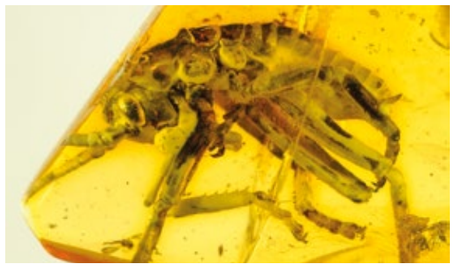

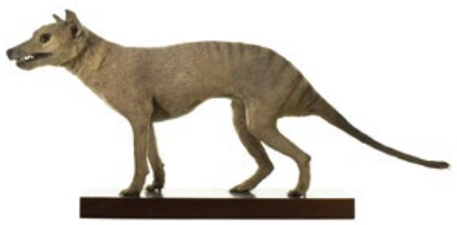

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Dollymania!

Dolly and her four cloned sisters, Dianna, Daisy, Debbie and Denise, stand proudly at the centre of the exhibition. Alongside the authentic taxidermy mounts, the exhibition features the voices of those involved in the process including scientists Ian Wilmut and Bill Ritchie and vet Tim King.

Beyond being a symbol of scientific progress, Dolly the Sheep became a figure within popular culture. Named after Dolly Parton, she too assumed celebrity status. Cloning became a popular cultural motif in books, comics, tv shows and films in the late 90s, expressing the scientific hopes and ethical fears of the time. The exhibition will explore cloning in popular culture including Jurassic Park, Star Wars and Star Trek which blurred the line between fact and fiction. The section will also explore misinformation about cloning and genetics – including fears around human cloning and genetic manipulation.

Dolly's legacy

Whilst Dolly was a global scientific breakthrough, cloning never became widespread, being both expensive and having a low success rate. However, scientists are now looking at cloning in the face of the Biodiversity Crisis. This section asks visitors to consider the ethical implications. What do they think about the attempts to bring the Australian thylacine back from extinction, or increasing the gene pool of critically endangered animals such as the Northern White rhino? What do they think of glowing pigs, genetically modified with jellyfish genes, to support the development of more disease resistant animals?

Dolly's legacy could indirectly lead to new approaches to the problems facing our planet today.

This exhibition is in early development. Availability is planned for 2029 onwards. We'd love to hear from you if you are interested in working collaboratively as the exhibition takes shape!

Our mission is to preserve, interpret and make accessible for all, the past and present of Scotland, other nations and cultures, and the natural world. Around 2.5 million people visit our four venues each year. The National Museum of Scotland, in Edinburgh, is the UK's most visited museum outside London.

Through our touring exhibitions, we offer our internationally important collection and diverse research to audiences worldwide, revealing the many fascinating stories these objects tell.

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