# Scientists aim to bring the woolly mammoth back to life by 2028



Scientists are working towards the ambitious goal of resurrecting the woolly mammoth, a species that has been extinct for thousands of years. Following the successful revival of the dire wolf, researchers at Colossal Biosciences, a biotechnology company specialising in de-extinction, have announced plans to potentially bring the woolly mammoth back to life by the year 2028.

Woolly mammoths once roamed vast areas of Europe, Asia, and North America from around 300,000 years ago until their extinction approximately 10,000 years ago, with the last known herds surviving until about 1650 BC. These large, herbivorous mammals were covered in two layers of shaggy fur and were roughly the same size as modern African elephants, although they possessed smaller ears, a trait that helped them conserve heat in frigid environments.

The precise reasons behind the extinction of the woolly mammoth remain uncertain; however, factors such as human hunting, habitat loss, and climate change are believed to have contributed to their decline. The distinct features of these creatures have sparked enduring interest in their biology and ecological role.

Colossal Biosciences has recently secured $200 million in funding to aid its de-extinction projects, particularly the revival of the woolly mammoth. Ben Lamm, the CEO of Colossal, expressed optimism about the possibility of seeing woolly mammoth calves by late 2028. In a statement, he noted, "Our recent successes in creating the technologies necessary for our end-to-end de-extinction toolkit have been met with enthusiasm by the investor community," indicating strong financial backing for their ongoing research.

In its efforts to implement this sci-fi concept, the company has already sequenced the genome of the woolly mammoth and identified ways to produce stem cells from Asian elephants, which are the closest living relatives of these ancient animals. They share approximately 95% of their genetic material, making them suitable subjects for the intended genetic modifications.

The next step in the project involves editing the genes of Asian elephants to incorporate selective mammoth traits. Lamm shared with Mail Online, "I like to think of what we're doing like reverse Jurassic Park." While past approaches aimed to fill in gaps using frog DNA, Colossal's method does not work from existing mammoth DNA but rather seeks to engineer the lost genes into that of the elephants.

By utilising cutting-edge gene editing techniques, including CRISPR, scientists at Colossal aim to insert specific 'target genes' associated with woolly mammoths directly into the DNA of Asian elephants. Lamm explained that this method allows for alterations to the genetic structure akin to modifying the rungs of a ladder, making it feasible to insert unique segments of mammoth DNA where needed.

The research team hopes that these modifications will lead to the creation of pluripotent stem cells, which can develop into any type of tissue, furthering their goal of reintroducing a living, breathing woolly mammoth back into the world by 2028.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://time.com/7264043/colossal-biosciences-woolly-mouse-bring-back-mammoth/> - This article supports the claim about Colossal Biosciences working towards de-extinction, specifically their experiments with woolly mice as a step towards bringing back the woolly mammoth. It also mentions Colossal's use of CRISPR technology in gene editing.
* <https://colossal.com/mammoth/> - This website explains Colossal's mammoth de-extinction project and process, highlighting their use of CRISPR technology and the goal to create a cold-resistant elephant with woolly mammoth traits.
* <https://colossal.com/de-extinction/> - This webpage provides an overview of Colossal's broader de-extinction efforts, including the woolly mammoth, and emphasizes the use of CRISPR for genetic engineering.
* <https://www.noahwire.com> - Though not directly available, the mention of Noah Wire Services as a source in the original text suggests it might provide information on biotechnology or similar topics. However, without specific content, it's difficult to corroborate specific claims about woolly mammoth research.
* <https://www.courts.michigan.gov/492eca/siteassets/publications/benchbooks/evidence/evidbb.pdf> - This legal document does not directly relate to the de-extinction of the woolly mammoth but highlights the importance of authenticating evidence, which could be relevant in a broader discussion about the validity of scientific research.