

The mammoth meatball

March 31, 2023

In news—Recently the mammoth meatball, sized slightly smaller than a volleyball, was unveiled at a museum in Amsterdam by Australian startup Vow.

About meatball-

- This meatball is **made of lab-grown cultured meat using the genetic sequence from the long-extinct woolly mammoth.**
- Cultivated meat – also called cultured or cell-based meat – is made from animal cells. **Livestock doesn't need to be killed to produce it**, which advocates say is better not just for the animals but also for the environment.
- **Vow used publicly available genetic information from the mammoth**, filled missing parts with genetic data from its closest living relative, the African elephant, and inserted it into a sheep cell.
- Given the right conditions in a lab, the cells multiplied until there were enough to roll up into the meatball.
- Experts say that if the technology is widely adopted, it could vastly reduce the environmental impact of global meat production in the future. Currently, billions of acres of land are used for agriculture worldwide.
- So far, tiny **Singapore is the only country to have approved cell-based meat for consumption.** Vow is hoping to sell its first product there – a cultivated Japanese quail meat.
- The mammoth meatball is a one-off and has not been tasted, even by its creators, nor is it planned to be put into commercial production.
- Instead, it was presented as a source of protein that would get people talking about the future of meat.

About the woolly mammoth-

- It is an **extinct species of mammoth that lived during the Pleistocene** until its extinction in the Holocene epoch.
- It was one of the last in a line of mammoth species, beginning with the African *Mammuthus subplanifrons* in the early Pliocene.
- The woolly mammoth **began to diverge from the steppe mammoth about 800,000 years ago in East Asia**. Its closest extant relative is the Asian elephant.
- The Columbian mammoth (*Mammuthus columbi*) lived alongside the woolly mammoth in North America, and DNA studies show that the two hybridised with each other.
- The appearance and behaviour of this species are among the best studied of any prehistoric animal because of the discovery of frozen carcasses in Siberia and North America, as well as skeletons, teeth, stomach contents, dung, and depiction from life in prehistoric cave paintings.
- Mammoth remains had long been known in Asia before they became known to Europeans in the 17th century.
- The origin of these remains was long a matter of debate, and often explained as being remains of legendary creatures.
- The mammoth was identified as an extinct species of elephant by Georges Cuvier in 1796.
- The woolly mammoth was roughly the same size as modern African elephants.