Resurrecting the dead: A second chance for the woolly mammoth?

Researchers in Japan believe that they may successfully clone a living woolly mammoth in the next few years. Exciting as this is, should the project be carried out or not?

PRACTICAL SCIENCE WITH PHIL FREDA

According to recent articles by ABC News and PC World, the extinct woolly mammoth may be getting a second chance at existence, thanks to Professor Akani Iritani of Kyoto University in Japan and his team. The woolly mammoth went extinct approximately 10,000 years ago.

There are many possible reasons why this happened. Climate change seems to be one of the biggest factors, but over hunting by humans, and adaptation and gene transfer between more "modern" elephants, may have also largely contributed.

The cloning process

The plan of Professor Iritani and his team is to extract nuclei from frozen and hopefully preserved mammoth tissue found in Siberia.

The nucleus of the cell is where genetic material is stored and maintained. If the nuclei are well preserved, the genetic material, which houses the blueprints to build a woolly mammoth, may be intact.

The viable nuclei will then be transplanted in the extracted eggs of the present-day African elephant. The African elephant and the Asian elephant are the woolly mammoth's closest living relatives. After the eggs have been fertilized, they can then be transplanted into the womb of a living African elephant.

After the elephant's almost two-year gestational period, if all goes well, it is possible that the first woolly mammoth in 10,000 years will be born.

The process will work in theory, but finding viable nuclei from frozen specimens is not easy. Only 2 to 3 percent of the extracted nuclei are expected to be viable, according to PC World.
Professor Iritani expects to impregnate the female African elephant in the next two years or so. The baby mammoth may be here in the next four to five years.

Should the mammoth be brought back?

I am sitting on the fence with this project. The decision is not easy.

The process and research, successful or not, is extremely interesting. Retrieving genetic material from 10,000-year-old specimen is exciting enough, but transplanting it into a living egg cell and possibly bringing the species back from extinction is unprecedented and astounding.

Even if the project is a bust, the chance of discovering new breakthroughs in genetic research and even disease prevention is possible.

On the other hand, this brings back memories of Jurassic Park. Mother Nature, God, the Universe, or whatever you care to call it, never makes irrational or random "decisions."
The mammoth was selected against for a number of reasons. Evolution's silent hand selects for the fittest individuals.

The climate was starting to change at the end of the last ice age 10,000 years ago. It became warmer, drastically changing the environment. The hairy body of the mammoth, which was so finely tuned for a colder climate, could not compete with more adapted elephant subspecies.

Essentially, the mammoth has not really gone anywhere; it has just evolved into the elephants that we see today.

The idea of bringing a species back into existence is exciting, but what will you do with a baby mammoth once it is born?

Would you breed more and more, and introduce them into an already stressed ecosystem?

Would you breed them just to perform research, and keep them in labs and zoos?

According to the article in PC World, the researchers admit that they are not sure what to do with the mammoth once and if it is cloned into existence.
Don't get me wrong, I do not think that this project should be forgotten or scrapped by any means. The implications for future discovery and research are too good to pass up. I believe, however; that there are better avenues for genetic research, such as disease prevention.

Perhaps if the mammoth is successfully cloned, the project should cease. The research team would prove to the world that a species that went extinct over 10,000 years ago could be resurrected. The baby mammoth could be given a good life in a protected research facility or zoo - but I think it should end there.

I would really like for readers to send me some feedback. I would love to see your comments on this article, and I would also like to know how you feel about the implications within.

Do you believe that the benefits of this research far outweigh any negative factors, or do you think that this project is a drastic mistake?

Think about it and comment. Looking forward to hearing from you!

Also, check out this video about How to Clone a Mammoth courtesy of ForaTV.