The First Successful Cloning of a Gaur (2000), by Advanced Cell Technology

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The first successful cloning of a gaur in 2000 by Advanced Cell Technology involved the cells of two animals: an egg cell from a domestic cow and a skin cell from a gaur. The researchers extracted the egg cell from the ovary of the domestic cow and the skin cell from the skin of the gaur. First, the researchers performed nuclear transplantation on the egg cell of the cow, during which they removed the nucleus of the egg cell. The mitochondria of the egg cell remained intact inside the cell. Next, the researchers fused the egg cell of the cow and the skin cell of the gaur by applying a single electric pulse. That process resulted in a cellular complex that contained the nucleus from the gaur and the mitochondria from the cow. That cellular complex was then placed into the uterus of a different domestic cow. Once the cellular complex developed into a Day 46 fetus, researchers conducted morphological and genetic tests. The fetus then further developed into a gaur calf, which lived for forty-eight hours after birth.

Subject

Topic

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