

Stem cell study in Japan paves way for manufacturing cultured meat

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A technique that may revolutionise future production of meat

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Researchers from Exeter Tokyo and Meiji (Japan), together with University of Nottingham's School of Biosciences and University of Cambridge, have developed stem cell lines from pigs, sheep and cattle embryos grown without the need for serum, feeder cells or antibiotics.

These novel cell lines can differentiate into multiple cell types, they can be genetically manipulated using Crispr/Cas9 gene editing tool and can be used as donors for nuclear transfer. This technology offers new opportunities for expanding research into gene editing animals to improve their productivity, and adaptation to to climate change and modifications of diets to reduce the environmental impact of livestock production.

According to the scientists, this research offers potential solutions that the food industry could use at scale.