

Korean researchers develop cultured beef rice

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A group of Korean researchers has developed a unique way to create refined by growing animal muscle and fat cells inside rice grains. This innovative method, recently published in the journal *Matter*, results in a nutritious and flavorful hybrid food that could offer a more affordable protein alternative with a smaller carbon footprint once commercialised.

The researchers used rice grains as a scaffold to house animal-derived cells, as rice is porous and has organised structures that can nourish and promote cell growth. During the process, the team coated rice with fish gelatine and seeded cow muscle and fat stem cells into the rice then cultured it in a petri dish for 9 to 11 days. The final product was cell-cultured beef rice with main ingredients that meet food safety requirements and have a low risk of triggering food allergies.

The hybrid rice was found to have 8 per cent more protein and 7 per cent more fat than regular rice, with a firmer texture. The researchers estimate that the hybrid rice could cost around \$2.23 per kilogram, while beef costs \$14.88 per kilogram. The innovation could be used for various purposes, including food relief for famine, military ration, or even space food.