STRUCTURED "MEAT" PROCESSES AND PRODUCTS FROM CELLS GROWN IN SUSPENSION CULTURE

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PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20230407246	12/21/2023	2021-066

BRIEF DESCRIPTION

Producing meat products using cells grown in culture (instead of via animal husbandry farming) has many benefits and great potential. Current cell-cultured approaches either: (1) use suspension culture to produce homogenous products that don't meet consumer taste expectations for a substitute meat, or (2) organ culture methods to create products that meet consumer taste expectations, but at unacceptably high prices.

To address this situation, researchers at UC Berkeley have been developing a process by which cells are grown in free suspension, making possible the economies of scaling that result from using large stirred tanks. After growth, the cells can be assembled into desirable macroscopic structures by controlling the conditions under which the desired multiple cell types and scaffolds are mixed and dewatered. The macroscopic structures include features such as fat marbling and muscle fiber orientation as expected by meat consumers.

SUGGESTED USES

Meat foods made from cells grown in culture (not from animal husbandry).

ADVANTAGES

Environmental and societal benefits without sacrificing consumer taste or cost expectations.

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OTHER INFORMATION

KEYWORDS

Cell-cultured meat

CATEGORIZED AS

» **Agriculture & Animal Science**

» Other

» **Environment**

» Other

» **Materials & Chemicals**

» Agricultural

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