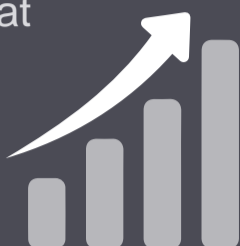


CULTURED PROTEIN

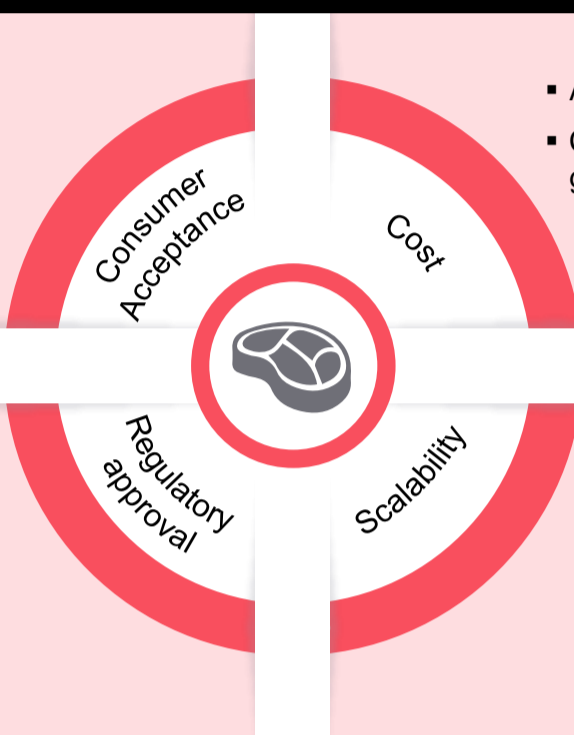
Global projected market value share of cultured meat consumption will reach

USD 1.8 Bn by 2040



Challenges faced by cultured protein segment

- Taste
- Texture
- Nutrition
- Ethical issue



- Affordable extracellular matrix
- Cost-effective cell-media and growth factor

- Acceptance of cell-cultured meat
- Production

- Scaffold designing
- Bioreactor designing

Category-wise solutions to the challenges

Cost-effective cultured meat



\$1.38Bn

raised by cultivated meat companies in 2021

ProFuse Technology reduces cultivated meat cost upto 40%. They optimize the cell differentiation, fusion and maturation production stage of producing cultured meat.



Quality improvement of cultured dairy



With an annual **1.1%** global population growth, worldwide breastmilk shortage is near

Wilk develops lab-cultured cow milk from mammary epithelial cells grown in the lab, sourced from cows or human breast cells. The company aims to improve the quality of infant formula alternatives and reduce cost.



Cultured sea-food with enhanced taste and texture



\$100 Mn

in Series B Funding

Wildtype's cultivated sushi-grade *Coho* salmon provides enhanced melt-in-mouthfeel, taste, texture including high fish protein and omega-3 fatty acid. The product is free-from metal toxins, antibiotics, and contaminants.



Cost-effective growth media in cultured pet-food



100%*

Because, Animals produces freeze-dried cultured protein snacks using FBS-free media. They use AI to produce cultured rabbit for dogs and cultured mouse cats.



High scalability of cultured egg



0.5-2.5% of young children are affected by egg allergies

Moolec Sciences uses cell-based technology to develop egg analogue, utilizing engineered ovum protein incorporated into wheat ingredients.



Cost-effective and texturized cultured insect protein



35-60%

dry weight protein content of edible insects

Tufts University has found a way to produce lab-grown insect-based steaks and burgers with improved texture and lesser cost utilizing insect muscle and fat tissue.



Regulatory approval



Singapore Food Agency has requirements for the safety assessment of novel foods, including approval of cultivated meat products. SFA approved the sale of Eat Just Inc.'s cultivated chicken bites to this framework, the first such approval in the world.



In **Canada**, cultivated meat and seafood are characterized as "novel foods" requiring the submission of detailed information such as a letter of no objection for human food use, premarket assessment for new animal feed, and an environmental assessment under the New Substances Notification regulations.



The **US** regulators have created regulatory framework specific to cultured foods from animal cells.



In the **European Union**, the Novel Foods Regulation governs pre-market authorizations for foods produced from animal cell or tissue culture.

Note: *Similar to plant protein

About FutureBridge

FutureBridge tracks and advises on the future of industries from a 1-to-25 year perspective.

We keep you ahead on the technology curve, propel your growth, identify new opportunities, markets and business models, answer your unknowns, and facilitate best-fit solutions and partnerships using our platforms, programs, and access to global ecosystems and players.