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Will Cultivated Meat Take Over The Food Industry?

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ABSTRACT

With the world's ever-increasing meat consumption, the supply of meaty products is beginning to dwindle rapidly, bringing cultivated meat at the forefront of the consumer market. Read on to find more.

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Introduction

Ever since the corona virus pandemic began, a significant chunk of the world population has lost its life. But despite the enormous number of deaths the world has seen, its demand for food seems to be on the rise. The global health crisis has deteriorated the economies worldwide, causing people to lose their jobs at an unimaginable rate. With millions of people employed, the food insecurity graph is rapidly climbing.

In October 2020, The UN's Food and Agriculture Organization (FAO) reported that food insecurity impacts more than 2 billion people, citing an increase of 10 million from October 2019. Suffice to say that the demand for food is climbing, and studies suggest that it will continue to grow, forcing the food industry to feed 10 billion mouths by 2050.

And with meat being the primary source of protein, and in general, food, relying on industrial animal agriculture for meat products is getting more and more unsustainable. That is why many food manufacturers have developed environmentally sustainable ways to produce meat in a lab without harming the animals. The meat produced in an artificial environment is cultivated, cell-based, slaughter-free, cultured, cell-cultured, or clean meat. And by the looks of the food market, it seems that **cultured meat** will take over the entire industry in the future.

Cultivated Meat: The Science

The science behind **cultured meat** is pretty simple; experts cut out stem cells from an animal under anesthesia. The procured sample is then placed with nutrients, growth factors, salts, and pH buffers and left to proliferate. The resulting product is slaughter-free meat.

Although the process of cultivating faux meat is slow, the industry is beginning to flourish at a remarkable rate.

Figure 1.

Red meat steak with red chilies and black peppers

Staggering Stats

Forbes has reported that the global **cultivated meat** market is expected to grow $15.5m by 2021 and $20m by 2027, and nearly 35% of all meat available in the market by 2040 will be cell-based.

According to another study conducted by the Institute of the Future in Palo Alto, cultivated meat will be a standard product in

supermarkets by 2023. Despite being a relatively recent synthetic product, cultured meat seems to be going mass-market quite early on in its life. It was only four years ago when an American company created quite a buzz producing meat-less, cell-based meatballs.

The Beginning of Cell-Based Meat Industry

The California-based company Memphis Meats introduced cultured meatballs four years ago as an alternative to real meat. Since then, the company has been working on mega projects to lunch **cell-based meat**on a much larger level worldwide. Memphis Meats' CEO, Uma Valeti, is hell-bent on providing the world with slaughter-free meat to reduce the risk of heart disease and offer an affordable meat-like meat alternative. His corporation is currently working on a pilot plant to produce beef, chicken, and duck on a mass scale.

Memphis Meat is not the only player in the market; many other cell-based meat manufacturing companies are also working to scale their businesses to boost supply. San-Francisco's Artemys Foods, Berkely-based Mission Barns, and San Diego-based BlueNalu are all working on sustainable ways to supply cultivated meat, which includes fish and duck, to the growing world population.