

Cell-Based/Cultured Meat

The Alliance for Meat, Poultry & Seafood Innovation (AMPS Innovation) is working to bring new methods of producing real, high-quality, safe meat, poultry and seafood products directly from cells to the United States.

The United States is a leader in food and agriculture innovation. As the global demand for meat rises, innovative methods of meat production will play an increasing role in the diets of consumers. The Food and Agriculture Organization of the United Nations predicts meat consumption will rise 73 percent between 2010 and 2050, which means the world must find another solution to feed our growing population in the decades ahead. Cell-based/cultured meat, poultry and seafood products can be a sustainable source to fill the gap.

America has the opportunity to seize on the innovation in front of us and maintain our place in leading to feed the world, but if we do not remain open to new technologies — especially in terms of food production — we risk losing valuable ground. The emergence of producing meat from animal cells has already led to hundreds of millions of dollars in investments in these products across the United States and the globe.

How Innovative Cell-Based/Cultured Meat Production is Advancing around the World:

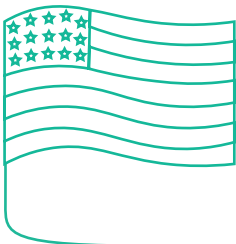
- Food safety regulators in **Singapore** already are developing a comprehensive framework to regulate cell-based/cultured meat made for human consumption. Public consultations have been ongoing since 2018.
- In recent years, **India's Department of Biotechnology**, the **New South Wales state government**, and the **Israeli government's Innovation Authority** have all funded research dedicated to the development of cell-based/cultured meat in their respective countries.
- **An Israeli company** is in discussions to sell their cell-based/cultured steak in high-end markets in the U.S., Asia, and Europe by 2021.
- **A Dutch company** also expects to bring their cell-based/cultured hamburgers to European markets by 2022.
- The **Japan Science and Technology Agency**, within the Japanese government, has also invested \$20 million into a Japanese startup working to produce cell-based/cultured meat. The company plans to start selling foie gras to Japanese restaurants in 2021 and expand to supermarkets by 2023.
- The **University of Tokyo** partnered with Nissin Foods to develop small cell-based/cultured meat cubes for the company's freeze-dried ramen packs.

While our products are currently in various stages of R&D, by working through appropriate regulatory pathways at USDA and FDA, our products soon will be in restaurants and on grocery store shelves around the U.S.

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U.S. Companies Are Currently Leading the Industry

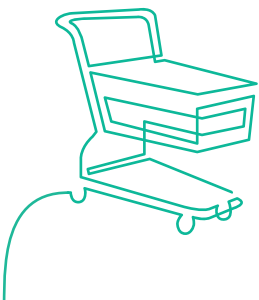
While this industry is being established in countries all around the world, U.S.-based companies are currently at the forefront of developing cell-based/cultured meat, poultry and seafood products.



By the end of 2019, the United States was leading the world with **nine companies** working on cell-based/cultured meat, poultry and seafood products and that number has continued to grow.



To date, U.S.-based companies have been the most successful at attracting private investment, so far raising **hundreds of millions of dollars** in funding.



Investors in U.S.-based cell-based/cultured meat companies, include individuals like **Bill Gates** and **Richard Branson**, industry partners like **Tyson** and **Cargill**, and a plethora of **venture capital firms**.

In order to keep up with the global demand for these products and maintain U.S. industry leadership, the U.S. regulatory environment must continue to foster the growth of American companies and enable a clear path to market. Global competitors, often with the support of their governments, are looking to enter markets soon.

We are grateful of the progress that FDA and USDA have made so far. A swift regulatory process will keep the U.S. in a global leadership position.