We can now diversify and bolster the protein supply by producing meat in a new way. Rather than raising and slaughtering animals, we can cultivate meat. This is done by starting with the basic building block of all life - the cell.

Beginning with a small sample of animal cells, we can directly grow the cells into the same meat, poultry, and fish products we enjoy eating today. In conventional animal farming, cell growth occurs in an animal. But we can grow the same cells in what is known as a cultivator. The cultivator facilitates the same biological process that happens inside an animal by providing warmth and the basic elements needed to build muscle: water, proteins, carbohydrates, fats, vitamins, and minerals. Cultivating meat is similar to the way we help plant cuttings to take root in a greenhouse, which provides warmth, fertile soil, water, and nutrients.

This new method of meat production harnesses the wonders of nature but does it in a different environment. The result is an abundance of pure meat, identical to conventional meat at the cellular level.

It looks, tastes, and cooks the same. Compared to conventional meat production, meat cultivation requires only a fraction of the natural resources, decreasing the rate of methane emissions, deforestation, antibiotic resistance, biodiversity loss, and foodborne illnesses.

Because this new method of production requires fewer resources, it should ultimately be possible to cultivate meat at a lower cost. Innovators around the world are working to bring this new way of producing beef, poultry, pork, fish, and seafood to market at a competitive price point. The FDA and the USDA will jointly regulate and ensure the safety of this new form of meat production in the United States.

A collaboration between Mattson and The Good Food Institute.
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MEAT CULTIVATION
GRAPHIC

ILLUSTRATING THE PARALLEL BETWEEN FAMILIAR AND NOVEL FORMS OF FOOD PRODUCTION

Start with a small cutting from a plant

Start with a small sample of cells from an animal

Place cutting in a nutrient-rich environment that allows it to grow

Place sample in a nutrient-rich environment that allows it to grow

Enjoy your vegetable. Bon appétit!

Enjoy your meat. Bon appétit!

Download the draft report at www.gfi.org/CultivateMeat