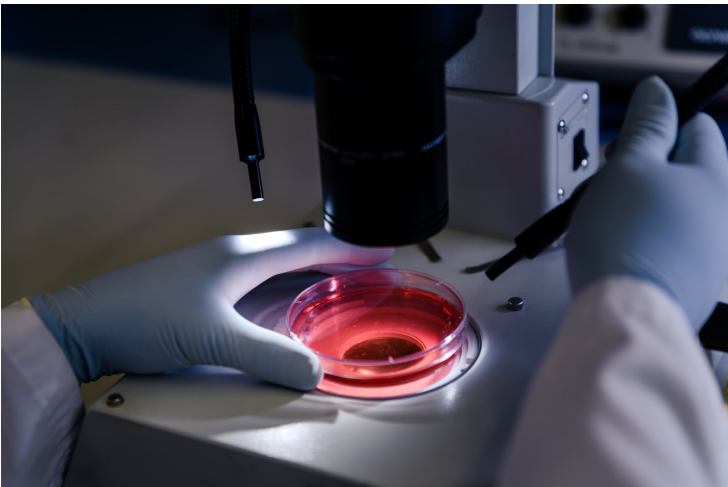


AI to reduce cultivated meat production costs and shorten time-to-market

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Enzymit, a bioproduction platform company developing enzymatic manufacturing technology, has successfully developed insulin substitutes, in partnership with food technology company Aleph Farms, that can reduce the cost and development time for producing cultivated meat at scale.

One of the most prohibitive expenses in scaling up cultivated meat production is developing non-animal-derived serum protein mimetics that promote and support cell growth. Such proteins are not widely available in the current market at the quantity, quality and cost necessary for large-scale production.

Israeli firms Aleph Farms and Enzymit are co-developing novel insulin substituents in microorganisms that can fulfill the function of proteins found naturally in animals and do so with greater desired activity per molecule.

"This innovation, combining Enzymit's outstanding protein design and experimental capabilities with our team's expertise in cellular agriculture, is helping to build the foundations for our sector to achieve cost-efficiency and long-term impact. Developing more suitable processing aids for the production of cultivated meat is imperative for driving economies of scale and taking cultivated meat mainstream" says Neta Lavon, PhD, CTO of Aleph Farms.

The success of this collaboration opens the door to additional benefits, far beyond the cultivation of cow cells. As insulin is a highly conserved protein across mammals and other species, it has the potential to similarly influence the production of other

cultivated meat types, such as porcine, ovine and poultry.

"Aleph Farms has been an invaluable partner for this initiative, which can pave the way for more cost-efficient production of cultivated meat," said Gideon Lapidot, PhD, CEO of Enzymit. "With recombinant proteins currently accounting for the overwhelming majority of cell culture costs, creating highly stable and more active insulin substituents can markedly reduce the cost of growth media and increase efficiency in producing cultivated meat at scale."

Utilizing its proprietary computational design algorithms and high-throughput testing capabilities, Enzymit was able to quickly develop a variety of insulin substituents and experimentally assess their functionality. All those selected were soluble proteins expressed in *E. coli* and purified without requiring refolding, complex purification steps, or other treatments. Further screening resulted in several leading candidates exhibiting superior results in activity for cell culturing and requiring minimal concentration for activation. These new proteins, which demand notably fewer downstream purification and maturation processes, dramatically reduce production time and costs.