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BSF Enterprise PLC

("BSF" or the "Company")

UK's First Full-Scale Fillet of Cultivated Meat Produced

The Lab-Grown Pork Fillet Represents a Scientific Breakthrough which Exceeds Expectations in Appearance, Taste and Texture

BSF Enterprise plc, an investment company focused on unlocking the next generation of biotech solutions, announces that its wholly owned subsidiary, 3D Bio-Tissues (3DBT), has successfully produced the UK's first steak fillet of structured cultivated meat in its Newcastle-based laboratory. The fillet of pork was subsequently cooked and eaten by 3D Bio-Tissues' management team.

The fillet was produced using 3DBT's patented, serum-free and animal-free cell booster, City-mix™ which eliminated the requirement of conventional plant-based scaffolds, blends or fillers, as have been universally adopted by the industry to date to ensure structural integrity of cultivated meat products. 3DBT's fillet is therefore 100% meat, leading the Company to believe this is the world's first 100% cultivated pork steak to be produced.

This represents a significant development milestone and following the success of the technical tests and the identification of development areas, 3DBT will forge ahead in producing a showcase product - a full-scale fillet of cultivated pork which will be presented, cooked, and eaten at a public event in the coming months.

A video of the meat being cooked can be viewed below:



The process

3DBT used porcine cells to produce the cultivated pork fillet, measuring 9 cm width, 4 cm in length and 1 cm in height, making it similar in size to a small fillet of traditional meat. The fillet was replicated to pork's unique flavour and texture.

The process of producing the fillet began by extracting cells from a pig and putting them in a cell-culture environment, which allowed them to grow and divide. The cells were then cultivated using the company's proprietary structured meat technology along with their patented cell-boosting supplement City-mix^{TM} to turn the cells into structured meat.

City-mix^{TM}, a standalone commercially available product, enables the reduction of the use of expensive growth factors whilst increasing yield. Its use enhances the growth of cells and tissues to the point that the need for a scaffold is eliminated. City-mix^{TM} is a critical intellectual property component of the Company's offering, providing clear competitive differentiation and world-leading technology.

Tasting and testing

3DBT'S Chief Executive Officer, Dr. Che Connon, and Chief Science Officer, Dr. Ricardo Gouveia, tested the fillet in the lab for various qualities in both its raw and cooked states and, for the first time, sampled the product in order to test its similarity to eating conventional meat.

In its raw state the cultivated steak fillet was very similar in appearance to conventional meat with fibres clearly visible. On cutting the fillet, it displayed similar structural integrity to raw conventional meat, including resistance to breaking and compression. In addition, it was the same to the touch in terms of consistency and elasticity and, as with fresh traditional meat, had no obvious aroma while raw.

On pan-frying, the fillet was cooked through and exhibited an element of shrinkage, as would be expected with high-quality traditional meat. The fillet seared easily, showing the typical browning, charring and crisping on its surface, and the aromas were identical to those of frying traditional pork.

When eating the cooked meat, it was found to exhibit very similar texture, consistency and flavour to that of traditional pork. In summary, the test results exceeded expectations in all respects. The testers agreed that both the texture and the taste in the mouth was indistinguishable from pork steak. The texture being a direct consequence of the unique cell-growth and tissue-templating process employed by 3DBT.

Next steps

3DBT now plans to take the findings from this to produce a further fillet to be showcased publicly outside of the lab environment and for third-party individuals to taste the produce. In the next phase, 3DBT plan to build upon the [structural integrity] already delivered.

Dr. Che Connon, Chief Executive of 3DBT, said: *"This is a significant scientific breakthrough which has very positive implications not just for BSF and 3DBT but also for the UK and the cultivated meat industry as a whole. We are absolutely delighted with the look, taste and texture of our cultivated pork, which is the first time we have fully sampled our product. Our cruelty-free fillet has exceeded our expectations in all respects, and we are extremely excited about the technological progress we are making and the impact this could have upon our industry.*

"City-mix^{TM}, our serum free media in which we cultivated the fillet, is helping to greatly reduce the cost of cultivated meat such that it may become economically viable in the near future. At the same time our 'structure without scaffold' technology is helping to make cultivated meat that more closely resembles traditional meat in every respect, without the need for plant-based additives. We look forward to taking the findings through to the next stage of development, focused on producing a chef-ready product for public consumption."

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