AgroSpectrum ASIA
Envisaging Future | Updating Present

Steakholder Foods creates Worldâ??s first 3D-printed edible fish fillet

27 April 2023 | News

Partner with Singapore's Umami Meats to create a scalable process for producing structured cultivated fish products usingÂ proprietary 3D bio-printing technology and customized bio-inks

Partner with Singapore's Umami Meats to create a scalable process for producing structured cultivated fish products usingÂ proprietary 3D bio-printing technology and customized bio-inks

Steakholder Foods has achieved a milestone by using its 3D bio-printer to create the worldâ??s first cultivated fish fillet in partnership with Singapore-based cell-based seafood company Umami Meats. The successful printing of the grouper fillet is a significant step towards commercializing the bioprinter and developing sustainable solutions for the food industry. The Steakholdersâ?? unique technology allows the fillet to be ready for cooking immediately after printing, mimicking the texture of cooked fish.

In partnership with Singapore-based cell-based seafood companyÂ Umami Meats, Steakholder Foods has developed this propriety product. Using grouper cells provided by Umami Meats, Steakholder Foods customized its bio-inks to print the cultivated grouper product. The partnershipâ??s goal is to create a scalable process for producing structured cultivated fish products usingÂ Steakholder Foodsâ?? proprietary 3D bio-printing technology and customized bio-inks. The success of the 3D printing of the grouper fillet represents a significant step towards the commercialization of the bioprinter.

Unlike other cultivated meat products, the grouper fish fillet is ready to cook after printing, Steakholder Foodsâ?? unique technology allows the mimicking of the flaky texture of cooked fish.

The seafood and fish market is a long-term part of Steakholder Foodsâ?? vision to introduce sustainable solutions that increase food security. With an estimated size of $110 billion and projected growth of 3-4% annually, the company anticipates expanding its collaborations to a greater variety of species with additional partners. Steakholder Foods is developing a slaughter-free solution for producing a variety of beef and seafood products as an alternative to industrialized farming and fishing.

The achievement by Steakholder Foods represents a significant milestone in the development of 3D bio-printing technology for the food industry. The successful customization of bio-inks to an external cell line opens the door to a wide variety of potential collaborations along the path to commercializing the 3D bio-printer. In the future, other structured cultivated products, including beef and seafood, will likely be developed as a result of the significant progress in developing sustainable solutions for the food industry.