

MAKING A SPLASH IN CULTURED MEAT

Cultured Decadence and its lab-grown lobster may solve some pressing food-supply problems.

BY **KIMBERLY HAZEN** AND PHOTOGRAPH BY **CULTURED DECADENCE**



Cultured Decadence co-founder and Chief Scientific Officer Ian Johnson reviews a proliferation of lobster cells, one of the first steps in making lobster meat directly from cells. The company is working to bring cell-cultured lobster meat to the market.

While you may not find cell-cultured meat on many holiday tables, John Pattison, CEO and co-founder of Cultured Decadence, hopes to change that.

Currently, nearly 100 companies are racing to bring cell-cultured meat to market with most focused on terrestrial proteins including beef, chicken, and pork. Eight companies are working in the seafood arena and only two are working with crustaceans. The nine-person team at Cultured Decadence, working from the Madison-based Forward Biolabs coworking space, is hoping to bring cell-cultured lobster meat to mainstream consumers.

"Lobsters are pretty interesting animals," Pattison explains. "They have the ability to regenerate limbs and body parts."

While this means that cells can be biopsied from the animal without great harm, the real reason for the choice of lobster is environmental. Since lobsters can't be farmed or aquacultured in the same way that shrimp and fish can, there are few supply sources of lobsters. Harvest areas in North America are under threat from rising ocean temperatures, and this can lead to decreasing yields. "Once those channels go away, there are no other alternatives," Pattison explains, "so there's a pressing need to develop this technology now."

At the simplest level, growing cell-cultured lobster meat involves taking biopsies from real lobsters, isolating specific cells, and getting those cells to grow in a controlled, safe environment outside of the animal's body. The cells receive the same nutrients in a liquid media that they would in nature. Once the cells grow to a certain density, they can be harvested.

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— **John Pattison**, Cultured Decadence

The end product could take the form of mince, a tail, or even a form that doesn't naturally occur such as a cube, medallion, or spear. The goal is to bring lobster — in all its taste and nutritional glory — to consumers who otherwise would eat the less-sustainable option of live lobster meat.

Pattison, who runs the company with Ian Johnson, co-founder and chief scientific officer, thinks consumers will be ready for the change. "The plant-based industry has done a nice job in educating consumers

about alternative proteins," he explains. "Cell-cultured meat is the next and better phase of the food revolution."

Running a startup that grows cell-cultured meat was not originally part of Pattison's career plan. After earning his MBA from New York University's Stern School of Business, his goal was to be a financial consultant, but interest in a more sustainable food chain changed his path. His financial knowledge, however, is helping him identify the market potential for Cultured Decadence. "Looking at this industry, I felt this was an underserved aspect of the food supply chain that had a lot of opportunity from an IP development standpoint," he notes.

The Food and Drug Administration and the U.S. Department of Agriculture are well aware of the technology and the industry, but it will be a few years before Cultured Decadence is ready to commercialize. Until then, Pattison is learning — sometimes the hard way — to be resilient.

"You're going to hear 'no' both on the business side and the science side," he says. "You need to take that feedback and continue to push forward." **IB**

Cultured Decadence
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