

Real fish fillets — no hooks, or nets, required

By Brittany Meiling
The San Diego Union-Tribune

A San Diego foodtech startup has grown fillets of yellowtail fish entirely from cells, making the local company one of the most scientifically advanced in the world of lab-grown seafood.

The startup, called BlueNalu, is less than 2 years old and yet it has hit a scientific milestone many researchers only dream of. In front of a small crowd gathered at San Diego Bay last week, the startup's chef prepared the lab-created yellowtail fish in a variety of ways, from fish tacos and poke to seafood bisque.

For those unfamiliar with cell-based seafood products, they are made of real fish meat and fat — or what we call “fillets” — grown through cell cultures in a food manufacturing facility. The hope of companies like BlueNalu is to meet the demand for real fish products while addressing ethical and environmental concerns of eating fish.

While the process is unfamiliar to the average person, the company's founders say the lab-made seafood products aren't any more unnatural than, say, Greek yogurt, which also requires the culturing of cells.

“We are not any more ‘lab-made’ than ketchup or Oreos,” said Chris Dammann, chief technology officer of BlueNalu, in an interview earlier this year. “They all started in a lab.”

Several other science startups have demonstrated similar taste tests of their cell-based seafood products, including San Francisco-based Wild Type, which organized a dinner earlier this year featuring its lab-grown salmon. But BlueNalu's fish appears unique in its ability to withstand different cooking methods, a competitive manufacturing advancement. By comparison, Wild Type's salmon falls apart when cooked at high temperatures.

“Our medallions of yellowtail can be cooked via direct heat, steamed or even fried in oil; can be marinated in an acidified solution for applications like poke, ceviche, and kimchi, or can be prepared in the raw state,” said BlueNalu's CEO Lou Cooperhouse in a statement. “This is an enormous accomplishment and we don't believe that any other company worldwide has been able to demonstrate this level of product performance in a whole-muscle seafood product thus far.”

In a Union-Tribune profile of the

startup earlier this year, industry players addressed the huge scientific hurdles companies like BlueNalu face. One big challenge is manufacturing the products in large batches, which researchers and startups have long struggled to accomplish. Just creating the small batches of yellowtail cooked during the demonstration was a considerable accomplishment.

“This was an extraordinary technical feat,” Dammann said in a statement. “When we started this company, there was very little available science on the long-term propagation of fish muscle cells and no reliable culture protocol. To create a whole-muscle product from fish cells that are grown without genetic modification required considerable innovation. Scientifically, the achievement of going from blank canvas to food product so quickly cannot be understated. We are now ready to focus on our next phase of growth to increase production volume.”

Cooperhouse said the startup expects to launch its seafood products into a test market within



Photo courtesy of BlueNalu

BlueNalu's whole-muscle, cell-based yellowtail prepared in acidified form in a kimchi recipe.

two years. In addition to yellowtail, BlueNalu is also developing

other finfish species, including mahi mahi and red snapper.

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Surrender Group
7 - 8:00 pm
2620 Bearco Loop

City of Elgin Greater Elgin Group
7- 8:00 pm
St. Mary's Catholic Church
93 S 12 St., Elgin

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Primary Purpose Group
12 - 1:00 pm
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Surrender Group
7 - 8:00 pm
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Blue Springs Apartments
Community Room

Turning Point Group
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63161 Gekeler Lane
Fort Union Grange Hall
(Corner of McAllister & Gekeler)

THURSDAYS
Surrender Group
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City of Cove Cove Group
7 - 8:00 pm
Baptist Church
707 Main St.

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City of Elgin Elgin Group (Winter only)
6:00 PM
70564 Valley View Rd
(in shop)

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2620 Bearco Loop

Grande Ronde Valley Group
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