

# 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



Photo courtesy of BlueNalu

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

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 two years. In addition to yellowtail, BlueNalu is also developing other finfish species, including mahi mahi and red snapper.

# Flavorful variety: Top culinary book choices

**By Grace Wong, Louisa Chu, Nick Kindelsperger, Jennifer Day and Joe Gray**  
Chicago Tribune

In a publishing year crowded with gear books (Instant Pot, Air Fryers, sous vide) and diet books (Keto, plant-based), it’s got to be hard for authors to stand out. As we searched through the hundreds of books that came in this year, these 11 did. From immigrant cooking to in-depth vegetable how-tos to black culinary history, these books are our picks for 2019’s best — books we’re just as likely to want for ourselves as much as buy for holiday gifts.

— Joe Gray

**“Indian-ish: Recipes and Antics from a Modern American Family” by Priya Krishna**

- Houghton Mifflin Harcourt, \$28

Like many children of immigrants, myself included, Priya Krishna grew up on dishes that held the essence of her parents’ home country but were adapted to fit what was available to them. “Indian-ish” is a love letter to Krishna’s mother, Ritu, who made pizzas out of roti, saag paneer with feta and Indian taquitos from leftover sabzi to appease her two American-born daughters. Enjoy a spirited exploration of Krishna’s wholly authentic Indian-ish experience through the lens of her mother’s recipes, from quick weeknight meals to grand dinner parties, that will have you agreeing that Indian food is everyday food, indeed.

— Grace Wong

**“Joy of Cooking: 2019 Edition Revised and Updated” by Irma S. Rombauer, Marion Rombauer Becker, Ethan Becker, John Becker, Megan Scott**

- Scribner, \$40

“Joy of Cooking” has been around since 1931, when Irma S. Rombauer self-published it following her husband’s death. In the intervening years, three subsequent generations of the Rombauer-Becker family have left their mark on the beloved cookbook. This latest

installment — a line-by-line review and revision by Rombauer’s great-grandson John Becker and his wife, Megan Scott — strikes just the right balance. It’s modernized, but not lacking in tradition. It’s comprehensive, yet approachable for even first-time home cooks. With the advent of the internet, it’s rare to see a completist cookbook these days; keeping “Joy of Cooking” relevant today is an admirable feat. With 600 new recipes and a thoughtful edit of the existing text, it’s an excellent choice for a new generation of cooks, not to mention “Joy” fans who already have an older edition on their shelves.

— Jennifer Day

**“Jubilee: Recipes from Two Centuries of African American Cooking” by Toni Tipton-Martin**

- Clarkson Potter, \$35

There are cookbooks that tersely mention history tidbits as sidebars to informing recipes or certain cooking techniques. Then there are cookbooks like Toni Tipton-Martin’s “Jubilee,” where history is made present and kept alive. Whether it’s handheld curried beef pies for a snack, sweet tea cakes to accompany a cup of tea or coffee, or spiral sliced ham made luxurious with a Champagne glaze, there’s one lasting thing made tangible in each flip through the pages filled with stirring photography. That is: None of us can afford to discount the role African Americans have always had, from the very beginning, in shaping food in regions across the country.

— Nneka M. Okona

**“Last Call: Bartenders on Their Final Drink and the Wisdom and Rituals of Closing Time” by Brad Thomas Parsons**

- Ten Speed Press, \$35

James Beard award winning spirits author Brad Thomas Parsons experienced an existential crisis after a revelrous night at a favorite local bar. Who among us hasn’t? Parsons and photographer Ed Anderson though visited more than 80 bars

and bartenders across the country, posing the question, “What is the last thing you’d want to drink before you die?” Illuminating answers and shadowed portraits reveal far more than final drinks. Recipes include three for Negroni, one from Lost Lake’s Shelby Allison, co-owner of the lovely Tiki bar in the Logan Square neighborhood of Chicago. Now the challenge is on to raise as many glasses from the book before our final last call.

— Louisa Chu

**“Let’s Make Ramen! A Comic Book Cookbook” by Hugh Amano and Sarah Becan**

- Ten Speed Press, \$19.99

You’ll find lots of recipes in this comic book cookbook by Hugh Amano and illustrator Sarah Becan, but the format really comes in handy when explaining the vast and often confusing world of ramen. Don’t know your shio from shoyu? The cookbook breaks down the differences with easy-to-follow illustrations. Wondering why tonkotsu ramen often leaves you in a “pork fat-induced stupor”? The book has a cartoon version of Ivan Orkin, the celebrated ramen restaurateur, tell you why. Even if you never make your own ramen, you’ll better understand what goes into a great bowl.

— Nick Kindelsperger

**“My Mexico City Kitchen” by Gabriela Camara**

- Lorena Jones Books, \$35

Gabriela Camara is the chef at Contramar, an acclaimed seafood-focused restaurant in Mexico City, so it’s no surprise that here you’ll find the recipe for that restaurant’s iconic tuna tostada. But the bulk of the book focuses on the kind of approachable home cooking that you could do any day of the week. Inside you’ll find humble yet satisfying dishes from soft-boiled egg tacos to a classic tinga de pollo. Don’t miss the salsa section. I think I’ve made the dead simple salsa verde cruda at least five times in the past couple of months.

— N.K.

**“Pok Pok Noodles: Recipes from Thailand and Beyond” by Andy Ricker with JJ Goode**

- Ten Speed Press, \$35

As the name suggests, chef Andy Ricker (owner of Pok Pok Restaurants in Portland, Oregon) focuses just on Thai noodle dishes here, with the bulk going to noodle soups. And the recipes work. One sip of the kyaytiaw muu naam sai (noodle soup with pork) and it felt like I was back in Thailand slurping loudly and sweating profusely from adding too much phrik naam som (vinegar-soaked chiles) in the bowl. While nearly every recipe features subrecipes, most of these are relatively simple to prep. Plus, most will happily hang out in your fridge for a few days, so you can recreate the same noodle soup the next day in just a few minutes.

— N.K.

**“Ruffage: A Practical Guide to Vegetables” by Abra Berens**

- Chronicle Books, \$35

Not until well past the halfway point in her book does Abra Berens mention the word that makes up the title. “You gotta get your ruffage,” she writes, remembering an admonishment from some unnamed person, a parent probably. She wields the phrase to dismiss boring salads, then launches into her love of salads and principles for creating great ones. Eating her vegetables is no chore to the former farmer and now chef, at Granor Farm in southwestern Michigan. Instead, “Ruffage” is a fat, 450-page celebration of vegetables, an instructional tome with 100-plus recipes and myriad flavor variations. It’s broken up into a well-considered pantry section, then the recipes, organized by vegetable, 29 of them, from asparagus to turnips and rutabaga. Essays open each chapter, then buying, storing and prep notes, before the recipes. Berens’ writing style is inviting and true and real; you feel warmly welcomed in these pages. It’s a remarkable book, really, for an untried name in the publishing industry, and it’s a triumph.

— J.G.

**“Vegetables Unleashed: A Cookbook” by Jose Andres and Matt Goulding**

- Anthony Bourdain/Ecco, \$39.99

Jose Andres, the Spanish-American chef and Nobel Peace Prize nominee, has had a busy decade, but he’s had help. At the height of his modernist tapas success, Andres and wife Patricia founded World Central Kitchen, serving a hot plate of food when it’s needed most to millions worldwide. This year he and co-author Matt Goulding may help save the world. If you’ve ever wondered what else to do with kale, cauliflower or squash, you’ll find daily inspiration in stunning photographs with every alluring recipe, and stories of friends they call Food Fighters. Start with Andres’ ode to Spanish tortillas, the potato omelettes that feed his soul.

— L.C.

**“We Are La Cocina: Recipes in Pursuit of the American Dream”**

- Chronicle Books, \$29.95

More than just a collection of recipes, “We Are La Cocina” is an intimate anthology of stories from alumni of La Cocina (“kitchen” in Spanish), a kitchen incubator that helps women of color and recent immigrants develop food products, restaurants, food trucks and food stall concepts. You’ll find a recipe for rosemary fried chicken from Fernay McPherson, who is still cooking for the Fillmore and the Mission neighborhoods in San Francisco, next to a guide to nopales guisados (stewed cactus), from Guadalupe Guerrero, who grew up poor in a small village in Guanajuato, Mexico, and brings a profound dignity to what she calls “poverty food.” You’ll be inspired and moved by this celebration of diverse immigrant cultures and stories — complete with stunning portraits of the chefs — and the food that allows you to experience a piece of them.

— G.W.

**“When Pies Fly: Handmade Pastries from Strudels to Stromboli, Empanadas to Knishes” by Cathy Barrow**

- Grand Central, \$30

The curious title almost made us dismiss “When Pies Fly” when it landed this fall. How silly, we thought. How wrong we were. Barrow, a seasoned and accomplished cookbook author (“Pie Squared” and “Mrs. Wheelbarrow’s Practical Pantry”), delivers again with “When Pies Fly,” a celebration of pastry-encased sweet and savory delights.

That title? It means the pies need no pan. So we get galettes, hand pies, poppers (her cute name for two-bite pies), empanadas, knishes, strudel and more, plus an innovation borrowed from her mother: framed pies, in which a slab of pastry is built up at the edges with decorative cutouts and fillings piled in.

As unifying gambits go, panless pie feels freeing. And her recipes, while quite exacting at times, pay off on the promise. The cheeseburger hand pies had flaky pastry like I’d never had before.

— J.G.

**BLUE MOUNTAIN RV**  
REPAIR

Dealer & Factory Certified Technicians

Discount for All Military & First Responders

**Rick**  
360.601.2067

**Todd**  
541.786.5095

627 E. Arch St, Union, OR 97883



Heart 'n Home  
— HOSPICE —  
goHOSPICE.com

*Home for the Holidays*

- Medical Services Brought to You
- 24/7 On-Call Nursing Services
- Physical & Emotional Support
- Traveling Hospice Options
- Available 24/7 for Admissions

Keeping you home & comfortable.

LA GRANDE  
(541) 624-5800

BAKER CITY  
(541) 524-7688

**Garage Doors & Openers**



**Wayne Dalton**  
GARAGE DOORS

**NE-Hi ENTERPRISES**  
*Big enough to do a large job. Small enough to care.*  
2122 10th St, Baker City • 541-523-6008 • ccb#155399