



TRENDSPOTTING: 2023

mattsonco.com | contact@mattsonco.com |



THE SHOW

IFT first

Food Improved by Research, Science and Technology

Attendance: 16,000+ food professionals from around the world

Size: Larger than 2022 with 1,000+ exhibitors this year vs. ~750+ last year

Content: 25 scientific & technical forums, 3 keynotes, and 5 featured sessions

Startup Pavilion: 86 companies showcased their innovative solutions





JUSTIN SHIMEK, Ph.D.
CHIEF EXECUTIVE OFFICER &
CHIEF TECHNOLOGY OFFICER



ALEX APOLINARIO
FOOD SCIENTIST



GINA HEIMSOOTH
FOOD SCIENTIST



JAIME REEVES, Ph.D.
EXECUTIVE VP,
PRODUCT DEVELOPMENT
& COMMERCIALIZATION



WINNIE LIU
SENIOR FOOD
SCIENTIST



LAURIE TROIANI
INNOVATION MANAGER

PREDICTION → **REALITY**

NEXT GEN INGREDIENTS



PREDICTION

In order to build the next generation of foods and beverages we need the next generation of ingredients as a critical enabler. I'm expecting to see an incrementally better range of plant-based proteins and ingredients with better color, flavor, and that have been tuned for more applications. I'm hoping to be surprised by a few highly functional ingredients enabled by precision fermentation, perhaps not on the floor but behind the booth discussions of what is coming!

- Justin Shimek, CEO & Chief Technology Officer



helaina

Triplebar 

Evolution at Hyperspeed

Accelerating the next generation of food
via Precision Fermentation and Cultivated Meat

Precision Fermentation: Producing proteins critical to our nutrition and health that are also accessible to all is a top priority. Precision fermentation can produce such proteins. In order to make this a scalable reality, we'll need microbes to make protein at low cost.

Cultivated Meat: Animal cells are always evolving. By oversampling the genome, biology can show us the rare cells within the population that perform well in a new environment. By finding these traits we can adapt a cell line for improved unit economics.

Our proprietary approach
We miniaturized evolution and run it at Hyperspeed. We've developed the microprocessor for biology allowing biology do what it does best only faster. We routinely screen millions of cell lines per day using our proprietary technology.

Product & Partnership focus
We focus where our technology unlocks value. We work with partners with food and manufacturing expertise to deliver on the potential of precision fermentation and cultivated meat. Lets bring access to sustainable proteins to the world.

Let's discuss what improved unit economics could mean for your organizations growth

triplebar.com


Triplebar

REALITY

NEW INGREDIENTS VIA PRECISION FERMENTATION

Helaina is using precision fermentation to produce immune-nourishing glycoproteins that bring the immunity properties of breast milk proteins to food for all stages of life.

Triplebar has developed a Hyper-Throughput™ screening platform to accelerate biological evolution and measure the effect of billions of mutations a day to reduce the cost of precision fermented protein manufacturing by developing cell lines that grow in suspension at high growth rates in cost-effective media and process conditions.



CLICK
TO
WATCH
VIDEO

REALITY

NEW INGREDIENT INSPIRATIONS!

The Cacao Fruit Syrup from **Luker Chocolate** was sweet, tart and would be a great upcycled and clean label sweetener for any acidic or fruit-flavored application.

Clear date syrup by **Al Barakah Dates** is made through a proprietary filtering process, in which color and flavor is removed. It's launching Q4 2023 to Q1 2024.

Lodaat showcased Aquatum, a water-soluble curcumin, an ingredient that is normally very insoluble in water. This powder is easily dissolved in water and has a clean flavor and aroma.

PREDICTION → **REALITY**

BFTP* INGREDIENTS

*** BETTER FOR THE PLANET!**



PREDICTION

Better for the planet ingredients, whether it's upcycled, regenerative ag, lower carbon emissions or lower water usage, I hope to see it being launched at IFT. Food Scientists need new sustainable tools in their toolbox to create delicious new products that make a positive impact on the environment.

- Jaime Reeves, EVP Product Development & Commercialization



REALITY

UPCYCLED INGREDIENTS

One Banana offers upcycled banana puree produced from ripe unsellable bananas.

Nutraberri offers upcycled raspberry seed fiber rich in polyphenols.

BioVeritas, LLC unveiled a clean label mold inhibitor. The ingredient is a cultured vegetable oil extract, created through a proprietary upcycling process and replaces calcium propionate in baked goods applications and they claim no substantial differences in texture or flavor.

Chinova Bioworks uses an eco-friendly process to extract a natural fiber from white button mushroom to create Chiber,™ a clean label ingredient with antimicrobial properties that can work across a broad spectrum of spoilage microorganisms like bacteria, yeast and mold. They recently launched MycoKleer, an upcycled fining agent for beverages also produced from white button mushrooms.

PREDICTION → **REALITY**

MOOD FOOD



PREDICTION

Low sugar functional beverages with health benefits such as gut health, mood or energy. I expect to see these beverages made with minimal levels of nature's sweeteners such as agave, fruit juice or honey rather than relying on high intensity sweeteners.

- **Laurie Troiani, Innovation Manager**



REALITY

TARGETED MOOD ENHANCEMENT

myAir offers a nutrition based solution to help you manage stress. You download the app, and take a short survey to see how stress affects you. Then you can connect it to your smartwatch to receive daily nutritional recommendations based on your physiological biofeedback. The program is tailored to your stress profile, allergies, diet, and ongoing mind and body feedback loop.

Leto Foods offers ready to mix shakes designed to boost your attention, memory and mood.





REALITY

ENERGY, STRESS, & FOCUS

Nexira has a large portfolio of superfood ingredients, including maca root powder for its energy enhancement and adaptogenic properties of relieving stress, and nopal leaf powder for its high mucilage fiber that improves gut health and digestion.



Florida Food Products showcased a beverage with L-Theanine, a trending nootropic for mental focus without the negative effects of caffeine.



Fermented Carrot Passionfruit Chamomile Beverage

L-theanine is a nootropic said to relieve anxiety and stress. Paired with FFP's flavor, botanical extract, and fermented vegetable juice, this beverage will relax and rejuvenate you!

Booth
#S0400

Visit FFP at IFT!
Find out more about our capabilities
and sample our products.

PREDICTION → **REALITY**

NOSTALGIA



PREDICTION

Nostalgic treats re-invented to satisfy today's sweet or savory tooth. Consumers are still craving their favorite go-to snacks but there is a growing desire for more variety with bold and different flavors. So, I'm looking forward to seeing the next wave of go-to treat applications showing new flavors such as ube, pandan, harissa, and za'atar.

- Alex Apolinario, Food Scientist



REALITY

NOSTALGIA-INSPIRED APPLICATIONS

Plant-based prosciutto from the **Louis Dreyfus Company** was made with pea protein.

Barley malt flour by **Briess Malt & Ingredients Co.** was used as a cocoa extender in a brownie. It imparted a fudgier flavor, darker color, and better mouthfeel than cocoa alone.

Sweegen showcased "The Sweetesify Collection," their line of Brazzein-Stevia blends. This year they highlighted its use in alcoholic beverages like the Old-Fashioned and Tequila Sunset.

PREDICTION → **REALITY**

GLOBAL FLAVORS



PREDICTION

Thanks to inflation, consumers are cutting back on dining out and instead cooking at home. But budget cuts won't stop their cravings for international flavors and culinary inspiration! That's why I expect to see ingredients that make global flavors easy to execute at this year's show. Internationally inspired sauces, unique condiments, with an expected focus on Italian, Mexican, and Chinese, but I'm excited to see if there's growing interest in Lebanese, Filipino, and Korean cuisines.

- Gina Heimsoth, Food Scientist



EVERY



REALITY

PLANT PROTEIN-PACKED GLOBAL GOODIES

Roquette showcased dumplings utilizing their powdered and texturized proteins to boost a serving of 3 dumplings to 9g of protein per serving.

Ingredient served spicy calabrian chili crackers made with their pea flour and isolate.

EVERY featured a protein nectar with 25g of EVERY protein per 2 oz of nectar syrup.

Brazilian Chocolate company, **Luker**, sampled milk and dark chocolate with pea protein.

Innovopro showcased their chickpea protein in a Mexican-style flan.





李錦記
LEE KUM KEE



MAPO
SAUSAGES AND
CALIFLORWER RICE
CASSEROLE



Ingredients
**Plant-Based
Cannoli Taco**
Cannoli filling made with a sweetened
Plant-Based PHILADELPHIA® vanilla
chocolate chips, and lemon. Piped into a
cinnamon sugar mini taco shell (corn).

REALITY

GLOBAL FLAVOR INSPIRATION

KraftHeinz served elotes, taco dip, and cannoli tacos featuring their Philadelphia plant-based cream cheese.

Lee Kum Kee showcased a spicy and savory mapo tofu and cacio e pepe with chili crisp.

Sensegen, a division of Blue California, showed yuzu, guava, dragon fruit and papaya flavors.

Ingredient Innovator **Revela** showcased guava flavor, mochi donuts, and queso.

Ingredient showed a provolone and calabrian chili cracker and paleta with a chamoy sauce.

Firmenich's flavor of the year is dragonfruit.

McCormick's inaugural flavor of the year is Vietnamese x Cajun Style Seasoning: a fusion of ingredients like cayenne, paprika, lemongrass, garlic, and fish salt deliver a bold savoriness and mild heat to dishes.



PREDICTION → **REALITY**

FUNCTIONAL ENABLERS



PREDICTION

Holistic health targets physical, mental, emotional, and spiritual wellness. Gone are the days of eating just to eat. Food is expected to supplement and nurture the body while balancing and supporting a healthy, strong mind. I expect to see functional, multifaceted ingredients that promote body and brain care, including medicinal fungi, targeted minerals and vitamins, pre- and probiotics, and nootropics.

- **Winnie Liu, Senior Food Scientist**



REALITY

FUNCTIONAL, AI-DRIVEN INGREDIENTS

Brightseed uses its Forager AI-powered platform to find new bioactive solutions to address health conditions. Forager identified two bioactive compounds: N-trans-caffeoyl tyramine (NCT) and N-trans-feruloyl tyramine (NFT) with potential gut health benefits, which they have validated through preclinical studies.

Forager was then able to identify NCT and NFT in 80 different plant sources—and identified hemp hulls—the shells of hemp seeds— as the richest known source of these compounds.

Brightseed developed a proprietary process to transform the hemp hulls into a dietary fiber ingredient with a high concentration of the bioactives, and named it Brightseed Bio 01.™



REALITY

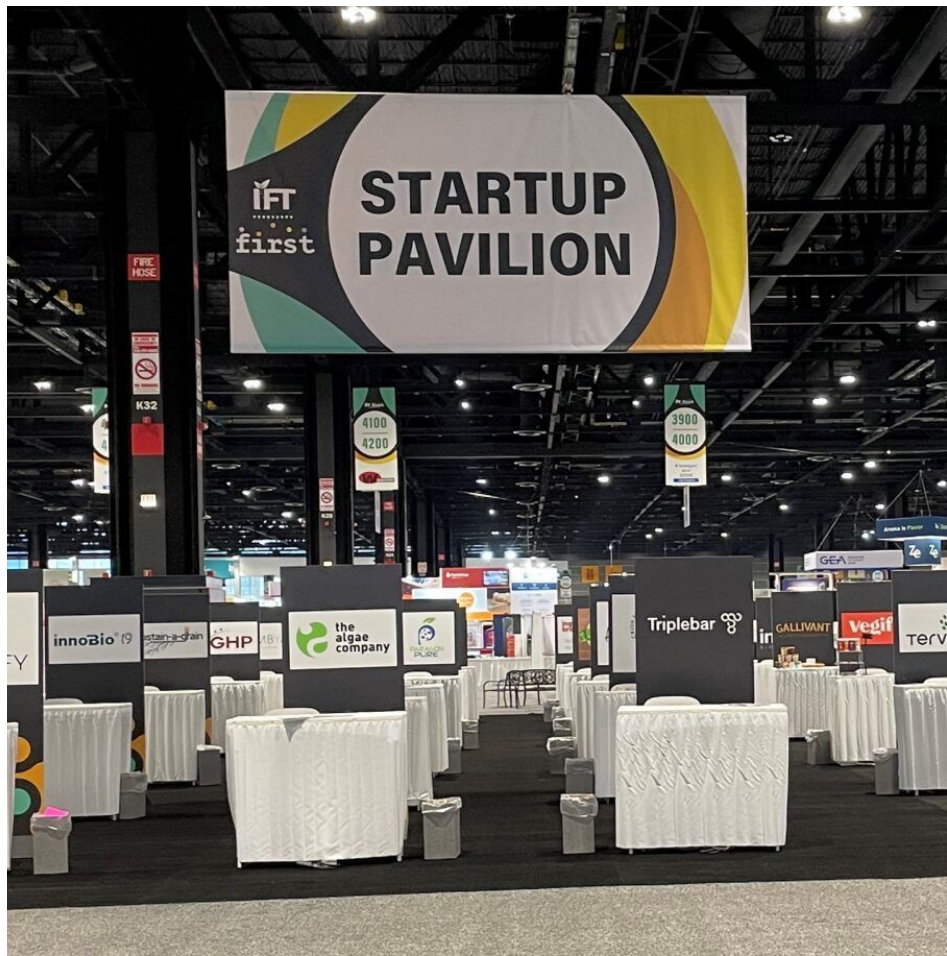
FIBER-FULL FUNCTIONALITY

Beneo showcased their new barley fiber Oraft β -Fit in adorable heart shaped waffles. It's manufactured using an eco-friendly dry milling and enriching process.

Re-sugar demonstrated their sugar reduction solution in Nestlé ice cream bars from Israel. The product uses their 1:1 replacement sugar, a combination of inulin, soluble corn fiber, sugar, and natural flavors.

Samyang debuted their new Crystalline KESTOSE, a soluble dietary fiber, and showcased it in reduced sugar chocolates.

**IFT FIRST:
THE START-UP PAVILION AND MORE**



THE START-UP PAVILION

The IFT Start-up Pavilion marked its second year as one of the fastest growing and most dynamic parts of the Expo Floor. It double in size to 85 table top exhibitors from 14 countries showcasing a range of novel ingredients & technologies, new products, and enabling services—including AI—for product development.

Additionally, the start-ups were invited to give rapid fire pitches for a chance at prizes totaling \$15K sponsored by [Seeding The Future Foundation](#). Helaina, a biotech company working to produce bioactive proteins via precision fermentation, took home the grand prize. SnapDNA and unClassic Foods were runners-up in the competition. SnapDNA is working to reduce the time needed to test for food pathogens, spoilage agents, and allergens. unClassic Foods, uses oyster mushrooms to create a plant-based meat substitute.



START-UP PAVILION FAVORITES

Veteran-owned **Fire Department Coffee** infuses coffee beans with spirits then roasts the beans to flash off the alcohol leaving the flavor behind. The beans are used in their delicious RTD beverages like whiskey infused Irish Coffee & bourbon infused Vanilla Bean Bourbon, both with real cream.

Gallivant makes Indian inspired mawa style ice cream, from open kettle-cooked milk. This makes for a rich flavor and creamy texture and is purported to be well-tolerated by those that are lactose intolerant. It also claims anti-inflammatory properties.

Woolah Bagless TrueDip Tea does not have a primary package: just a tag that indicates the variety. Flavors are added to whole tea leaves that are compressed and tied together with a string. When dipped (steeped) in hot water, the tea leaves come to life like flowers blooming.



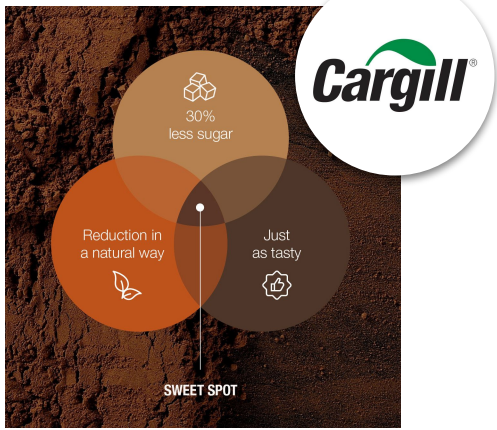
SODIUM REDUCTION TOOLS

Everywhere we looked we saw companies offering solutions for sodium reduction.

A few examples are **CJ Bioworks** and **Ajinomoto**, both of which showcased fermented solutions for using umami to enhance flavor, resulting in the ability to reduce sodium.

Saltwell sea salt contains naturally occurring potassium, providing 35% less sodium than regular salt.





SUGAR REDUCTION TOOLS

We don't need to remind you how massive the trend towards sugar reduction is. American kids eat a bathtub's worth (!) of sugar annually. And adults are just as bad.

Traditional companies like **SunSweet** offered dried prune powder to help reduce sugar with an added benefit of potential cost reduction.



Sweegen showcased Sweetensify™ Flavors for beverages. And they claim many food and beverage applications can benefit from taste modulation with their sweet protein Brazzein.

Cargill's Gerkens Sweety Cocoa Powders are low in bitterness and have a chocolaty flavor that gives a sweet perception, which means you need less sugar in applications with this cocoa.

MATTSON ON STAGE



Jaime Reeves is recognized as a member of IFT Board of Directors!



Justin Shimek on panel discussing, "What Innovations Will Prepare Us for the Next Crisis?"



Jaime Reeves on panel discussing "What Are Creative Solutions for Addressing Food Waste Across the F&B Value Chain?"

IFT TALK: PRODUCT DESIGN & DEVELOPMENT WITH PRECISION FERMENTED INGREDIENTS



JUSTIN SHIMEK, PH.D.
CEO & CHIEF TECHNOLOGY OFFICER



1. Precision fermentation enables a range of animal-free ingredients and exciting new food and beverage products.
2. A robust product development process, including an evaluation of internal and external factors, is needed to formulate compelling consumer products.
3. Consumer's show interest in these very new product concepts and technologies, but the language of traditional fermentation may not be adequate.
4. More research & experience with nuanced descriptions and naming may be needed. Do we need more *precision* in consumer language? Could "cultivated" serve as the umbrella term for the next generation of fermented food ingredients?
5. There are still significant gaps between the importance and the believability of the top drivers. Opportunities for marketers and developers alike!

IFT TALK: UPCYCLED FOOD INGREDIENTS

- WHO'S USING THEM?
- HOW DO I FIND THEM?
- AND ARE THEY FOR MY BRAND?



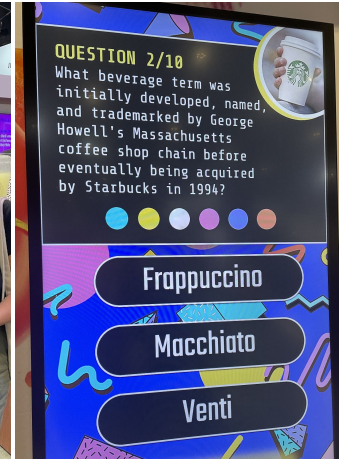
JAIME REEVES, PH.D.

EVP Product Development & Commercialization



1. Food waste is predominantly generated by residential homes, with manufacturing and farms contributing 31% of food waste- as food manufacturers we can reduce this number
2. The most used industry standard for validating upcycled ingredients and foods is the Upcycled Food Association
3. The challenge lies in bringing upcycled ingredients to market due to consumer demands for taste, affordability, and quality.
4. Transforming side streams requires choosing promising waste streams, ensuring supply consistency, addressing logistics, maintaining quality, and controlling costs.
5. Companies have begun to offer new solutions to food manufacturers for upcycling side streams, such as Trendi, GTF, Bepex, Netzro, Hyfe, and Bioveritas.
6. Upcycled ingredient variety is expanding, but companies need to address consumer skepticism and focus on credible certifications, i.e. the Upcycled Food Association.
7. The potential for incorporating upcycled ingredients into brands is promising, as evidenced by increasing consumer interest and intent to purchase, with 43% aiming to buy items using upcycled ingredients.

A 1990'S REWIND? WHILE NOT A SHOW TREND, A LOT OF FUN NONETHELESS (THANKS BELL!)



THANK YOU.



 **MATTSON**
WE MAKE FOOD HAPPEN



343 Hatch Drive
Foster City, CA 94404
650.574.8824
Contact@MattsonCo.com