

**BAKING TECH 2016**



**GROWTH THROUGH**

**INNOVATION**

**FEBRUARY 28-MARCH 1 | CHICAGO, IL**

# The Waffle Bar:

*A twist on the*  
***American Classic***

Jer Lin Poh, Sierra Jamir, Michelle Duong & Zi Xing Song



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 26-MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016





# THE WAFFLE BAR

A savory cheddar & chive waffle

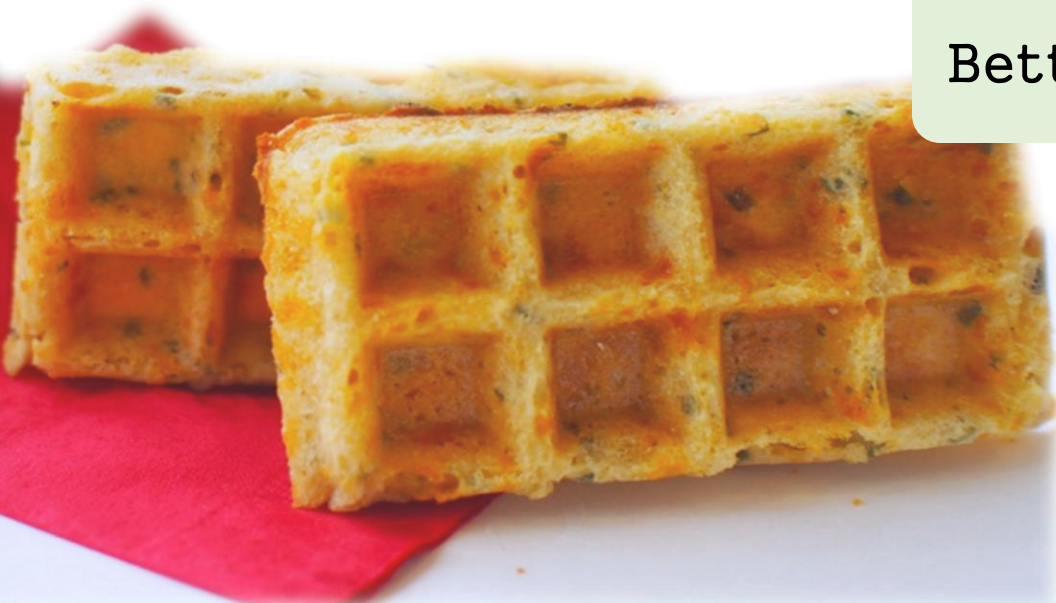
Innovative

Upgrading your breakfast  
from Sweet to Savory

Better-for-you

37g whole grains  
per serving

Breakfast on-the-go,  
anytime



THE  
WAFFLE  
BAR



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

# BAKINGTECH 2016





# What's inside?

- ✓ 17g of protein
- ✓ 5g of fiber
- ✓ No sugar added
- ✓ Good source of calcium
- ✓ Does not contain eggs or soy



## Nutrition Facts

Serving Size 1 2 waffles (104g)  
Servings Per Container 1

### Amount Per Serving

**Calories** 310      Calories from Fat 120

### % Daily Values\*

**Total Fat** 13g      **20%**

Saturated Fat 4g      **20%**

Trans Fat 0g

**Cholesterol** 15mg      **5%**

**Sodium** 550mg      **23%**

**Total Carbohydrate** 28g      **9%**

Dietary Fiber 5g      **20%**

Sugars 3g

**Protein** 17g      **34%**

\*Percent Daily Values are based on a 2,000 calorie diet.



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

# BAKING TECH 2016



**It's time for  
All Day Breakfast**



## Market Po



- 37% of consumers consume healthier options at shops
- All day breakfast: Savory bakery options are suitable for all-day snacking
- Savory flavors grew by 28% between Q2 2012 and Q2 2015



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016





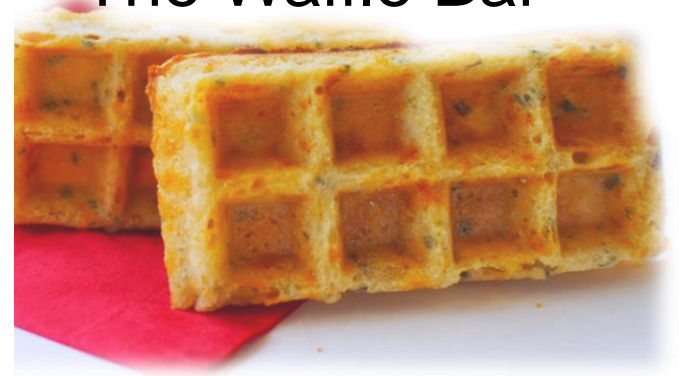
# Market trends



# Eggo Nutri-Grain Whole Wheat Waffles



# The Waffle Bar



Just as nutritious, and packed with flavor

| Per 100 kcal |
|--------------|
| 3.5g         |
| 235mg        |
| 5.9%         |
| 1.8g         |
| <b>2.9g</b>  |

| Nutritional Facts |
|-------------------|
| Fat               |
| Sodium            |
| Calcium           |
| Fiber             |
| Protein           |

| Per 100 kcal |
|--------------|
| 4.2g         |
| 178mg        |
| 6.5%         |
| 1.6g         |
| <b>5.4g</b>  |



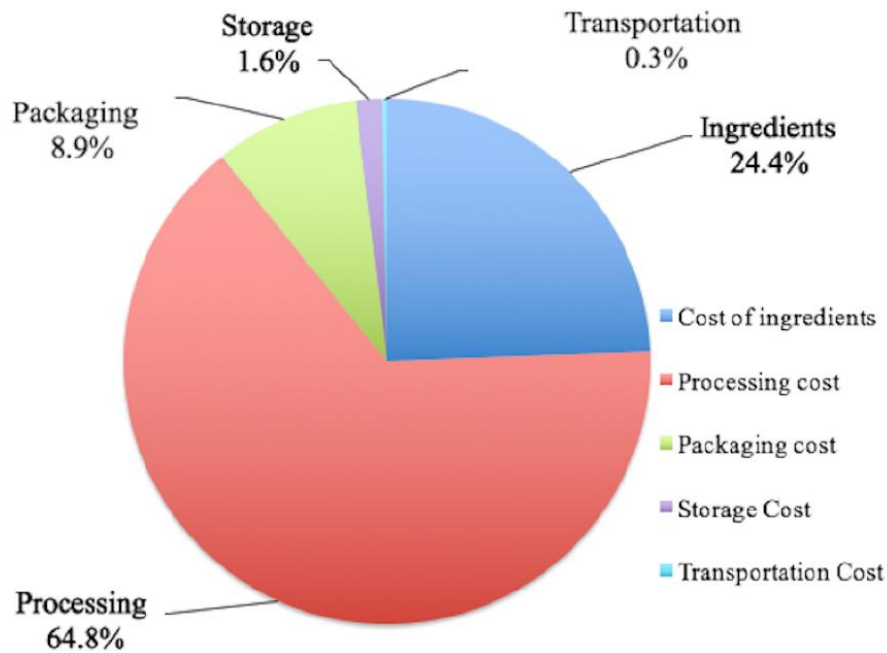
GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016



# Cost & Retail

## Distribution of Cost



To be sold at Starbucks outlets in NY, NJ & CT

Production cost: \$0.38\*  
(By local co-packer)

Retail price: \$2.75

\*Does not include Starbucks' operation costs

THE  
WAFFLE  
BAR



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 26 - MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016





# Technical Challenges

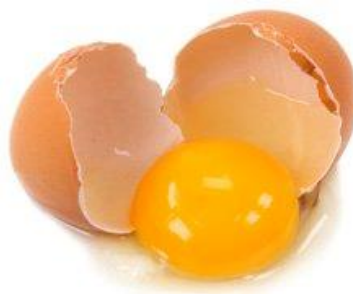
Sodium content vs  
water activity:  
 **$A_w$  reduction**  
**0.98 to 0.92**



**Mold Growth**



**Egg supply &  
cholesterol  
content**



**Staling**



**THE  
WAFFLE  
BAR**

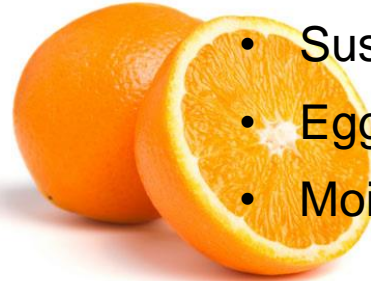
# Functional Ingredients

## Whey Protein



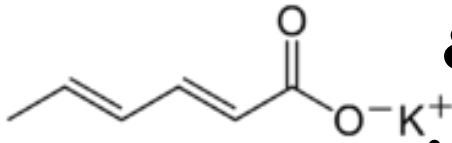
- Sustainable byproduct
- Egg replacer
- Cholesterol reduction: 144mg to 14mg

## Citrus Fiber



- Sustainable byproduct
- Egg replacer
- Moisture retention

## Potassium sorbate & Calcium propionate



- Retard mold growth

## Sorbitol



- Sugar substitute
- Moisture retention

THE  
WAFFLE  
BAR



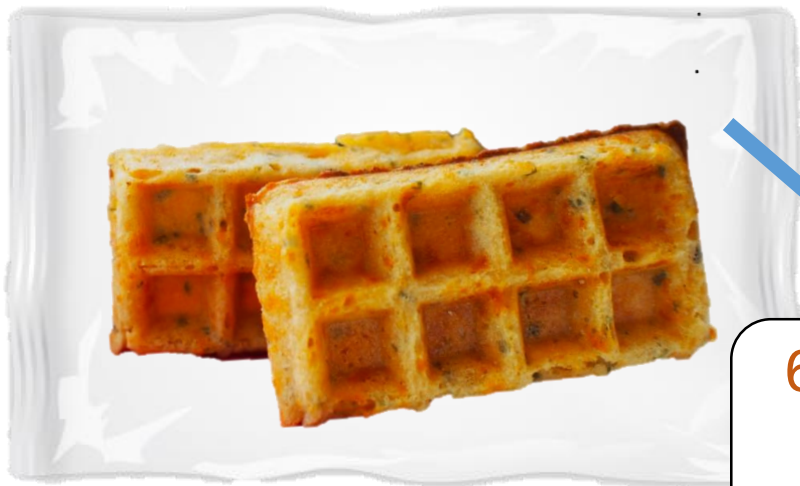
GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 26-MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016



# Packaging

- Modified atmosphere packaging
- PVDC-coated OPP film
  - High moisture and gas barrier properties



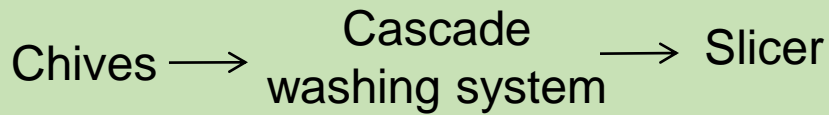
Prevents microbial growth  
& texture deterioration

60% CO<sub>2</sub>  
4% O<sub>2</sub>  
36% N<sub>2</sub>

THE  
WAFFLE  
BAR

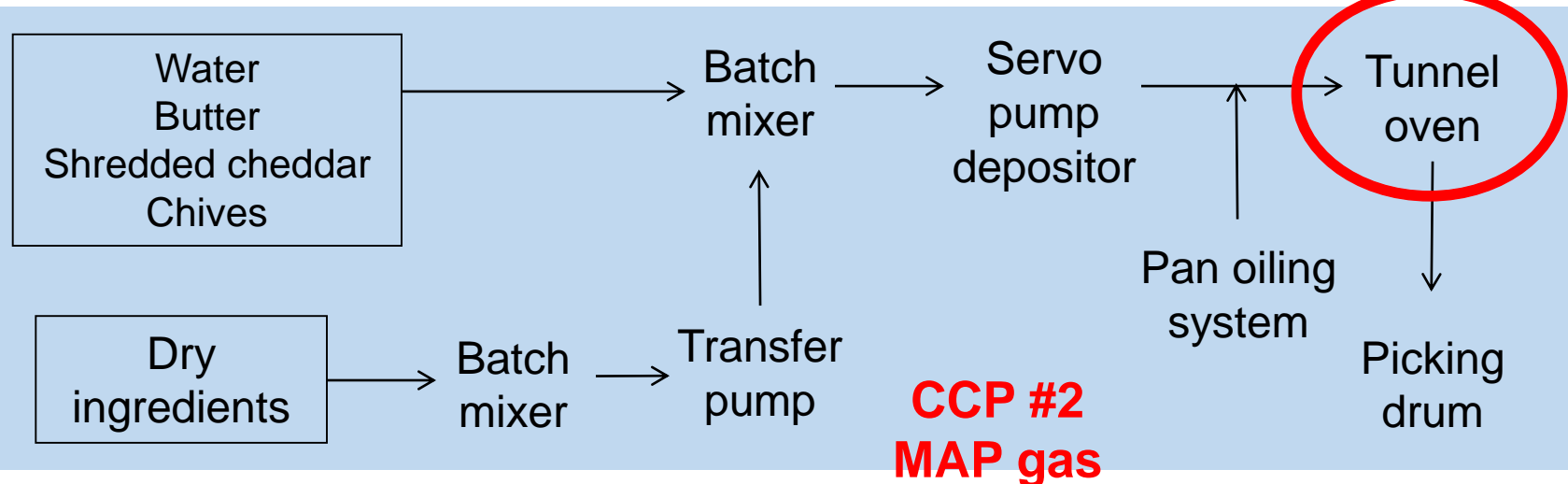


# 1. Preparation of chives



**CCP #1**

**Bake time and temperature**

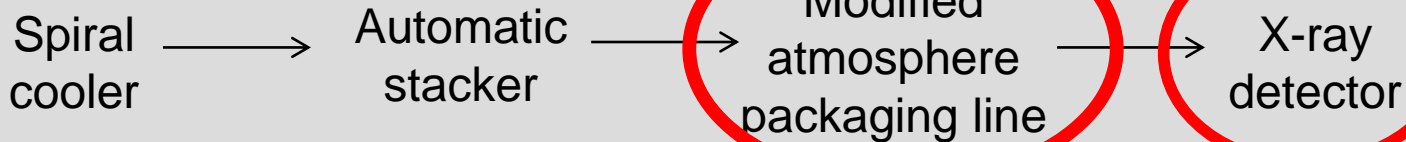


**CCP #2**  
**MAP gas**

**composition & proper sealing**

## 2. Waffle Production

## 3. Packaging



**CCP #3**  
**No foreign particles**



**BAKINGTECH 2016**



# Ensuring Product Safety



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 26-MARCH 1 | CHICAGO, IL

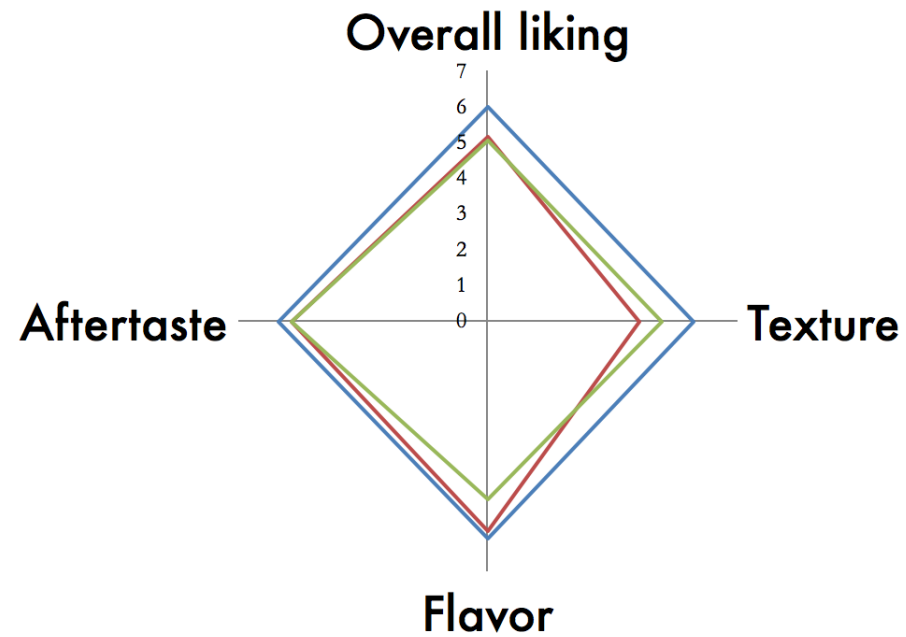
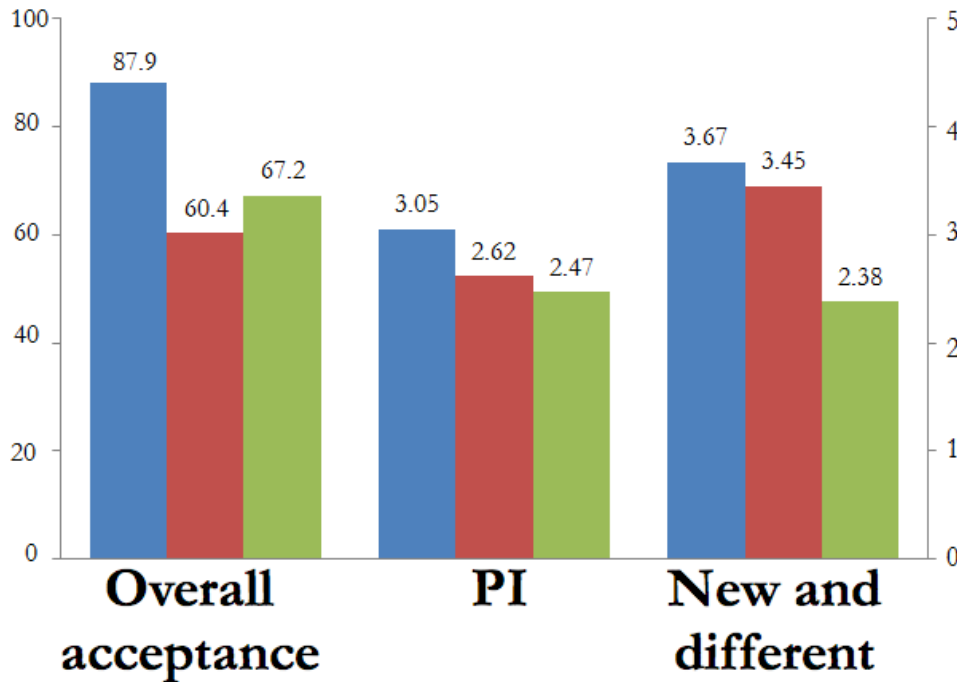
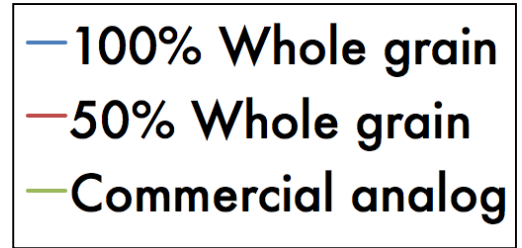
# BAKINGTECH 2016



# Sensory Analysis I

## *More whole grains, please!*

- The 100% whole grain analog was the most well-received.



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

**BAKINGTECH 2016**







# Sensory Analysis II

## *Butter is better*

- The Waffle Bar was perceived to be *very new and different*
- 70% prefer to purchase waffles made with butter
- 79% were willing to pay more for a waffle formulated with butter
- WTP: \$2.82 per serving

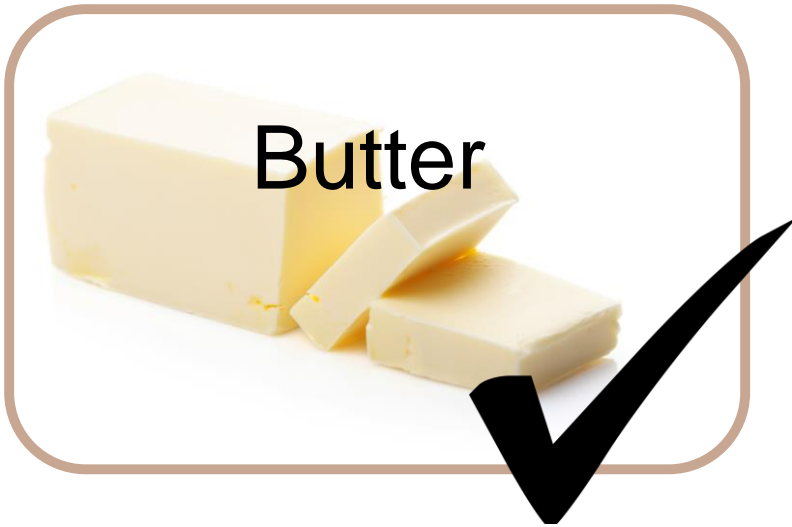
THE  
WAFFLE  
BAR



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016



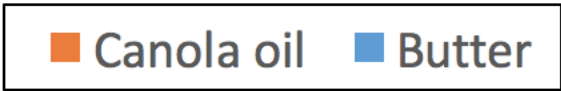


Butter

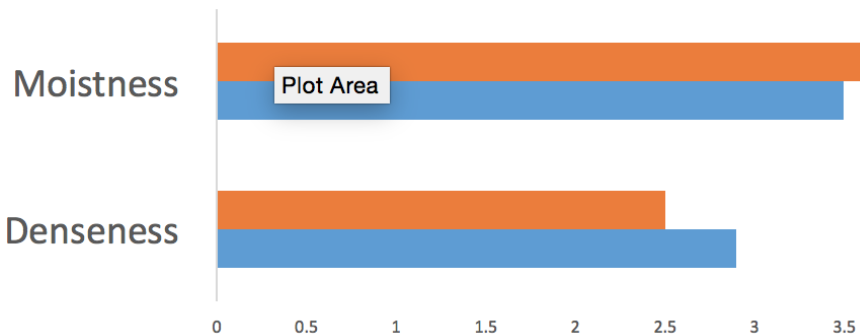
vs



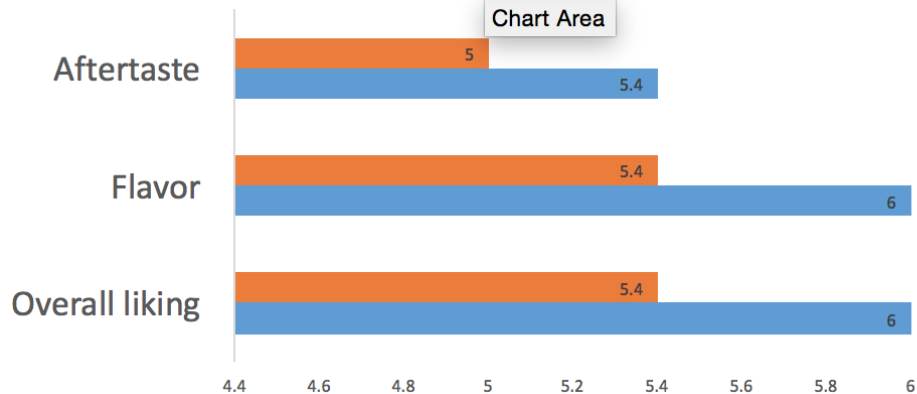
Vegetable oil  
+ Butter flavoring



JAR scale



Hedonic scale



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 20 - MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016



# Thank you!

THE  
WAFFLE  
BAR



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 26-MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016





# Thank you!

THE  
WAFFLE  
BAR



GROWTH THROUGH  
**INNOVATION**  
FEBRUARY 26-MARCH 1 | CHICAGO, IL

**BAKING**TECH 2016

