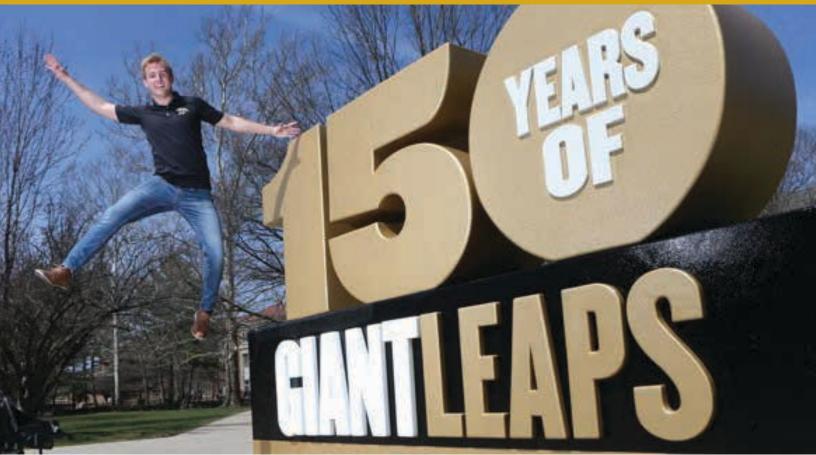


# DEPARTMENT OF **FOOD SCIENCE** ANNUAL SUBJECT OF SCIENCE ANNUAL SUBJECT OF SCIENCE ANNUAL SUBJECT OF SCIENCES OF SCI







## FROM THE DEPARTMENT HEAD

**Dr. Brian Farkas** Professor and Department Head



## **MORE INFORMATION**

The annual newsletter is only a glimpse of what's happening in the Department of Food Science. Please visit our website for more information at www.foodsci.purdue.edu.



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Moving? Changing jobs? Keep us updated at foodsci@purdue.edu



- Announcements In Memory
  - Department Highlights
  - Alumni Recognitions
  - Faculty & Staff Recognitions
  - Student Recognitions
  - Graduates
- Industry Recognitions Editor and Photographer: Laurie Lambert (Swift) VanKeppel

## ANNOUNCEMENTS

## FAREWEL



#### Betty Bugusu (Ph.D. 1998)

Betty served as the managing director of the International Food Technology Center since 2010. In 2014, she also become the director of the Feed the Future Food Processing Innovation Lab. In November 2018, Betty accepted a new role at Purdue as the technical director for the new USAID LASER-PULSE project (Long-term assistance and Services for Research – Partners for University –Led Solutions Engine), being led out of the College of Engineering.

#### Deborah Livengood

Deb served as the Department's business office account clerk since 2002. In January 2019, Deb moved to the newly formed College of Agriculture Business Purchasing Center located in the Agricultural Administration Building.





#### **Brittany Riggen**

Brittany joined the Department in 2015 as the business manager. In January 2019, Brittany became the assistant director of financial affairs for centers and ag operations within the College of Agriculture's business office in Agricultural Administration.

### Wendy Madore

Administrative assistant to the department head since January 2018. Wendy joined the Botany and Plant Pathology Department in March 2019 to serve as the academic advisor.





#### Telaina Minnicus

Secretary and course schedule deputy since she joined the Department in 2015. In July 2018, Telaina joined the Forestry and Natural Resources Department as an administrative assistant.

## ANNOUNCEMENTS

## Dr. Lavanya Reddivari

Assistant Professor

Dr. Lavanya Reddivari joined the Purdue Food Science faculty in August 2018. Her research focuses on plant food bioactive components and gut bacterial metabolism in health and lowgrade inflammation-driven chronic diseases. Dr. Reddivari's lab is specifically interested in understanding sources of variation in the content and composition of anti-inflammatory bioactive compounds in plant foods; how plant bioactive compounds influence the composition of gut microbiota; how gut bacteria influence the bioavailability and bioactivity of bioactives; and how bioactives and their gut bacterial metabolites suppress colonic inflammation, maintain gut barrier integrity and alter the inflammatory potential of gut microbiota.



## Adrian Peacock-Downey

Course schedule deputy and undergraduate student recruiting assistant

Adrian was previously a clerk at Purdue's Ford Dining Court for almost six years before joining the Food Science Department in August 2018.

## WELGUM

## Colleen "Cory"

#### Brenner

Administrative assistant to the department head

Cory joined the Department in April 2019. She has held several staff support positions during the past 11 years at Purdue in various departments and units including Purdue Convocations, Department of Agronomy, College of Liberal Arts, Dean of Students Office, and Linguistics and Comparative Literature Programs.





#### Angelia "Angie" Perez Bowes (B.S. 2001)

Angie passed August 28, 2018. After graduating from Purdue Food Science, Angie spent her professional career with General Mills in Minneapolis, Minnesota in various roles in quality, regulatory operations, and supply chain. Remembrances of Angie can be made to the Angelina Perez Bowes Food Science Scholarship at Purdue University.

#### Lea (Ebert Mohr) Gengelbach (B.S. 2000)

Mangaly

Lea passed away on May 2, 2019. After graduating from Purdue Food Science, Lea held positions at Gerber Foods, The Wornick Company and AmeriQual in Evansville, Indiana where she most recently was the Director of Technological Services.

## **DEPARTMENT HIGHLIGHTS**

#### What IF Eating Insects saved the planet?

In preparation of Purdue's annual Spring Fest weekend in April 2019, Dr. Andrea Liceaga, associate professor and director of the Sensory Evaluation Laboratory, teamed up with Brooklyn Bugs chef Joseph Yoon to discuss the benefits of eating and cooking with insects during one of Purdue's 150<sup>th</sup> Ideas Festivals to a standing room only packed classroom on campus. Dr. Liceaga's research lab focuses on developing alternative proteins and insect-based products like cricket protein powders. During his visit, Chef Yoon utilized Nelson Hall's Skidmore Product Development Laboratory and worked with several food science students to develop dishes served to over 3,000 people of all ages who visited Nelson Hall during Spring Fest.





Ben Paxcon and daughter at Eating Insects Ideas Festival



Chef Joseph Yoon and Andrea Liceaga



Front Row: Arianna Romero Marcia, Alyssa Kelley, Monique Chung, Belen Salazar Tijerino Back Row: Jose Bonilla Oliva, Adrienne Voelker, Hansel Mina Cordoba, Enrico Federici, and Zamorano Research Intern Donald Molina Chaves



Graduate student Hansel Mina Cordoba at the 2018 Indiana State Fair.

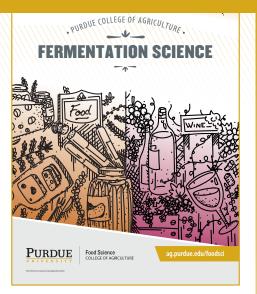
## **State Fair**

Thousands of people interacted with faculty and staff during the 2018 Indiana State Fair. Dr. Amanda Deering and her graduate student Hansel Mina Cordoba talked about produce handling and safety. Dr. Betty Feng demonstrated how to calibrate and properly use a food thermometer while stressing the importance of using a thermometer to ensure food safety and to avoid food poisoning. Dr. Cori Running conducted a sensory evaluation test with carbonated beverages to see whether unsweetened, but flavored sparkling waters were perceived as sweeter than unflavored sparkling waters (they were). Pilot plant manager Erik Kurdelak demonstrated food processing and fermentation. Allie Kingery, Wendy Madore, and Dr. Brian Farkas talked with prospective students and parents about the academic and career opportunities with a Purdue Food Science degree.



2018 Farkas at State Fair.

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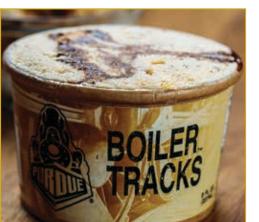


#### New Fermentation Minor launched in fall 2018

Developed by Dr. Fernanda San Martin, 36 students declared the new fermentation minor representing 7 different academic majors.

#### Senior Design Team Boiler Tracks Ice Cream Selected for Purdue's 150<sup>th</sup> Anniversary Celebration

Team Boiler Tracks Ice Cream from spring 2018 food science senior food product design class was selected for Purdue's 150<sup>th</sup> Anniversary Celebration. Yiwen Bao, Joel Mohring, Molly Powell, Cameron Wicks, Deklin Veenhuizen, and Luping Xu developed the delicious vanilla ice cream with a mix of chocolate pieces, toffee and caramel. Boiler Tracks is served in the residential dining courts as well as Harrison Grill and Pappy's Sweet Shop in the Purdue Memorial Union.





#### Scale Up Conference attracked hundreds from around the world to Purdue

A first of its kind, the Scale Up Conference, chaired by Suzanne Nielsen, held at Purdue in September 2018 focused on expanding technologies that can improve and save millions of lives in developing countries. Akinwumi "Akin" Adesina, president of the African Development Bank and 2017 World Food Prize Laureate opened the conference.



Boiler <mark>Black and G</mark>old Beer Cans

## Boiler Black released in Sep<mark>tember 20</mark>18

Purdue's second craft beer, The Boiler Black, released in time for Purdue's Homecoming weekend. Boiler Gold and Boiler Black are produced by People's Brewing Company in Lafayette, Indiana. A portion of the product sales is donated to Purdue College of Agriculture's Department of Food Science to support the fermentation sciences program.

#### Enologist Christian Butke Improving Environment and Lives in Peru

As part of the Purdue University Cooperative Technical Alliance Program with the Universidad Nacional de San Agustin (UNSA), Dr. Christian Butke was a workshop presenter in November 2018. One of the goals of the Alliance's capacity building initiative, the **Arequipa Nexus Institute** for Food, Water,



Energy, and the Environment, aims to strengthen Arequipa's grape and wine industry through advancements in sustainable agriculture.

### Purdue Improving Water Safety in Afghanistan

One in 10 Afghan children will die before their fifth birthday. Twenty percent of those childhood deaths will be because of diarrheal diseases arising from unsafe food and water.

Haley Oliver and Purdue colleagues are attempting to narrow that knowledge gap. Through the United States Agency for International Development's **University** Support and Workforce Development **Program**, Oliver, **Paul Ebner**, professor of animal sciences, Amanda Deering, clinical assistant professor of food science, and **Kevin McNamara**, emeritus professor of agricultural economics, have helped establish a new academic department and developed a new curriculum, backed by industry and approved by the country's Ministry of Higher Education. The first group of 18 students should earn bachelor's degrees in food technology at Herat University in Herat, Afghanistan, in December 2018.

## **ALUMNI RECOGNITIONS**

Nominations for these alumni recognitions can be submitted by anyone at any time. For details and deadlines, contact the Department Awards Committee by email, foodsci@purdue.edu.

## 2019 Distinguished Ag Alumni Award

### Nancie Corum-Oxley (B.S. 2002, M.S. / M.B.A. 2010)

Vice President of Quality Management, Hormel Foods, Austin, Minnesota

Nancie's interest in wine and winemaking began during her undergraduate years in the Food Science Department. While studying food manufacturing operations, she assisted Emeritus Professor of Enology Richard Vine in making wine as part of Purdue's grape and wine research program. In addition to working in the enology lab, Nancie helped Dr. Vine and the Purdue Wine Grape Team with coordinating the Indy International Wine Completion.



After completing a bachelor's degree in 2002, Nancie joined St. Julian Wine Company as assistant winemaker. In 2010, she was promoted to head winemaker, the State of Michigan's first female head winemaker. In 2017, Nancie was

promoted to vice president. Since joining the team, St. Julian wines have won more than 200 best of class/double gold awards. St. Julian's 2017 Mountain Road Riesling was named White Wine of the Year at the 2018 Indy International. The International Riesling Foundation honored its 2011 St. Julian LH Riesling as the "Best Sweet Riesling in the World." The St. Julian team created a sparkling version of the Traminette grape grown in Southwest Michigan. "What a better way to honor Michigan's first female professional winemaker than to name it Sweet Nancie," said the last St. Julian President David Braganini.

## 2018 Outstanding Food Science Award

The Purdue University Department of Food Science honored five alumni with the Outstanding Food Science Award in October 2018. The award recognizes individuals who have significantly impacted the food science profession in industry, academia, government, or other endeavors related to food science as exemplified by leadership, professional accomplishments, or community service.

#### Richard Carlson (B.S. 1990)

Vice President of Quality Management, Hormel Foods, Austin, Minnesota

In 1990, after completing a bachelor's degree in food science from Purdue University, Mr. Carlson began his career with Hormel Foods as quality and process control engineer at the Austin, Minnesota plant. He has held quality assurance and production management positions at the Stockton, California plant, Owatonna, Minnesota facility and at Jennie-O Turkey Store. In 2000, he was named director of quality assurance at Jennie-O Turkey Store and assumed the position of vice president of quality management at Jennie-O Turkey Store in 2010. He became vice president of quality management at Hormel Foods in 2014.

Over the course of Richard's career, he has made a notable impact on his company and the industry. He served as co-chair of the Technical and Regulatory Committee of the National Turkey Federation; developed industry leading listeria control procedures and Hazard Analysis and Critical Control Points (HACCP) for Jennie-O Turkey Store; and developed and implemented a novel electronic data collection system for Hormel Foods. In addition to his impact technically, Richard has contributed to Hormel's overall operations by implementing an electronic learning management system called On Your Way Mentorship Program for new quality control employees. Richard has supported the company's Women's Insights Network resource group, which works to create and maintain an inclusive work environment that supports diversity and inclusion at Hormel Foods.

#### Mary Carunchia (B.S. 2000)

#### Principal Scientist, PepsiCo Snacks, Plano, Texas

Dr. Mary Carunchia works at PepsiCo Snacks in Plano, Texas as a principal scientist focusing in flavor delivery research. Though she has spent the last 13 years as a Texan, she is a proud Boilermaker and an Indiana native. Her journey in Food Science began at Purdue and was fostered by the excellent faculty and the brand new (at the time) Food Science Building! Mary completed a bachelor's degree in food science at Purdue University in 2000. She earned a master's degree and Ph.D. at North Carolina State University in 2002 and 2005, respectively, focusing on flavor formation in fermented dairy products.

Mary has spent her entire career at PepsiCo Snacks in a wide array of different roles, including sensory scientist, product developer, and technical brand manager for Doritos. She helped develop products such as Doritos Collisions and Tostitos Dipping Strips. She spent a life-changing eight months working and living in Eastern Europe in Belgrade Serbia working on filled-pretzels, renovating the Marbo Baked brand, and figuring out how to read the Cyrillic alphabet. She has been working in PepsiCo Corporate Research

since 2012. Her current role in flavor delivery research is very interesting and delicious. At PepsiCo, Mary is active in training new hires about food science and the role of food science in product development.

## **ALUMNI RECOGNITIONS**

#### Jonathan Gray (Ph.D. 2003)

Senior Director of Research & Innovation, Danone North America, Denver, Colorado

Jonathan received a Ph.D. in food science from Purdue University (where he met his Boilermaker food science wife Kristen) in 2003 under the mentorship of Dr. James BeMiller within the Whistler Center for Carbohydrate Research and a bachelor's degree in food science from the University of Arkansas-Fayetteville.

At Danone, Jonathan leads the plant-based food & beverage R&I team which is responsible for product and process development for the Silk and So Delicious dairy free brands. Products under these brands include a wide-range of dairy-free options including almond milk, soy milk, coconut milk, dairy free coffee creamers, plant-based ice creams, and vegan cheese.

Prior to working for Danone / WhiteWave, Jonathan worked at ConAgra Foods for eight years where he progressed through several roles with increased responsibility. In his final role with ConAgra as director of research and development for frozen foods, he managed a team of 25 and was responsibility for the development of the \$2.5B frozen foods portfolio, which included brands such as Healthy Choice, Marie Callender's, Banquet, Kid Cuisine, P.F. Chang's, and Bertolli. Jonathan also has prior experience with Kraft Foods R&D in Glenview, Illinois in frozen pizza product development and grain sciences and with Nestle R&D in New Milford, Connecticut in coffee beverages and physical sciences.

#### Matthew Schaefer (B.S. 2003)

Global Director of Quality Assurance and New Product Development, Blommin' Brands, Inc., Nashville, Tennessee

Matt Schaefer is a seasoned product developer and restaurant industry leader. While growing up in southern Indiana, Matt developed an interest in food production while watching his grandparents produce molasses each summer on their small farm.

After graduating with a bachelor's degree in food science from Purdue University in 2003, Matt joined Archer Daniels Midland (ADM) in Decatur, Illinois where he worked in technical services and research and development across their portfolio of specialty food ingredients. At ADM, Matt worked hands on with hydrocolloids and plant based proteins. Following his desire to work closer to the consumer, Matt transitioned to Kraft Foods in Glenview, Illinois where he led development work on iconic packaged goods products like DiGiorno Pizza, Kraft Macaroni and Cheese and Velveeta. During this time, Matt furthered his education by completing a master's degree in engineering management from the McCormick School of Engineering at Northwestern University.

Known for driving organizational change, Matt was recruited in 2010 to lead productivity initiatives for Bloomin' Brands, Inc. In this role, Matt drove more than \$75M of shareholder value by championing productivity initiatives across the company's portfolio of five restaurant brands, which include Outback Steakhouse, Bonefish Grill, Carrabbas Italian Grill, and Flemings Prime Steakhouse. At the same time, Matt led a high impact project to redesign the company's kitchens focused on improving throughput and optimizing staffing. In 2015, Matt was able to leverage his passion for leading teams when Bloomin' Brands asked him to take on research and development and commercialization leadership for their beef, pork and poultry categories, as well as leading retail food safety across their portfolio of 1200 restaurants in his current role as global director of supply chain and commercialization.

#### Lilian Were (Ph.D. 2002)

Associate Professor of Food Science, Chapman University, Orange, California

Dr. Lilian Were teaches several courses at Chapman University including International Nutrition: World Food Crisis, Food Ingredients, Food Chemistry, Food Analysis, Research Methods, and Dietary Supplements and Functional Foods. She received the Schmid College of Science and Technology Excellence in Teaching Award in 2015.

Lilan received a bachelor's degree and master's degree in food science from the University of Arkansas, and completed her doctoral work at Purdue University in 2002 under the mentorship of Dr Suzanne Nielsen. Following graduation, Dr Were joined the University of Tennessee as a post-doctoral fellow in the food science biophysics lab, where she carried out studies encapsulating nisin and lysozyme in liposomes resulting in enhanced antimicrobial efficacy against Listeria monocytogenes.

In 2003, Dr Were joined Chapman University's Food Science Program. In her endeavor to feed minds that will feed the world, she combines content with character skills (conscientiousness, creativity, collaboration etc), many of which were reinforced during her years at Purdue. During her tenure at Chapman, she has coached the college bowl teams that were regional champions nine



out of thirteen years (2006-2018), and runner-ups twice at the National Institute of Food Technologists (IFT) Student Association college bowl competition in the same time period. From 2014-2017, she mentored two high school students, and five community college students, as part of a National Science Foundation-Research Experience for Undergraduates program award bringing community college students to campus for summer research experiences with Chapman science faculty. Her lab group is currently examining the role of chlorogenic acid-amino acid interactions and their relationship to flavor, color, and nutritional quality. In a separate project, they are studying mushroom's preservative effects in ground beef. Her scholarship has resulted in 28 peer-reviewed publications.

## ALUMNI RECOGNITIONS CONTINUED

### **2019 Food Science Early Career Award**

#### Whitney (Peters) Bemenick (B.S. 2008)

Director of Innovation, Endangered Species Chocolates, Indianapolis, Indiana

Whitney began her food science career after she graduated with a bachelor's degree in food science from Purdue University in 2008 as a Production Manager at Frito Lay in Frankfort, Indiana. She then became a food technologist for Sensient Flavors, which at that time was located in Indianapolis, Indiana. In that role, she worked to find solutions for Sensient's customers in the baking and confectionary categories, with an emphasis on the chocolate sector. It was during this time that she worked one on one with a chef at Barry Callebaut to become well versed in chocolate product development.



Students Rowan Waller and Erin Sukala, Whitney Bembenick, Dr. Brian Farkas

That three year run with Sensient prepared Whitney for her next role as research and development manager with Endangered Species Chocolates in 2013 in Indianapolis. Endangered Species Chocolate is proud to be a non-GMO, fair trade premium chocolate bar option. The company donates 10% of their annual net profits to conservation groups through their GiveBack partnerships. Whitney jumped right in and developed several new products during her first year including a line of dairy-free, gluten-free, crème-filled bars with unconventional flavor combinations such as lavender mint and sea salt lime. During Whitney's four years as R&D manager, the company developed and launched 15 new items including the Dark Chocolate Salted Caramel bar, which quickly became the company's 3<sup>rd</sup> best-selling bar and 10% of their total revenue. In 2017, Whitney was promoted to director of innovation and placed on the senior leadership team. In this role, Whitney is driving the company's strategic brand growth through product innovation, packaging, branding, and marketing. This spring, ESC Duoz, a product line which Whitney developed and also has a patent pending on, will be launched and is projected to be the company's largest product launch in its 26 year history.

#### Rodney Green (B.S. 2002, Ph.D. 2008)

#### Director of Research and Development, Conagra Brands, Omaha, Nebraska

Rodney began his career with Conagra Brands in June 2008 shortly after finishing a doctoral degree in food science at Purdue University under the mentorship of his major professor Dr. Mario Ferruzzi. Rodney spent two years working in research, quality and innovation for the Hunt's Division of Conagra and then was promoted to a senior food scientist position where he managed all research and development for the food service category within Conagra, which included frozen foods, school lunch products, and shelf stable products. Within one year, Rodney was promoted again to serve as manager of research and development for the grocery platform for Conagra Brands. Rodney worked on several iconic brands such as Van Camp's, Blue Bonnet, Reddi Wip, Peter Pan, Egg Beaters, Ro\*Tel, and Rosarita. In 2015, Rodney was promoted to director of research and development for the frozen and refrigerated brands. He leads a team of many talented people that is responsible for more than \$2.8 billion in annual sales for Conagra Brands. In 2018, Rodney's team delivered over \$100 million in sales from new item innovation and topped \$20 million in improved profit for the business.

In addition to earning a Ph.D. from Purdue's Department of Food Science, Rodney also earned a bachelor's degree in 2002. During those years, Rodney worked in the Department's Enology Laboratory with Professor Richard Vine and enology specialist Jill Blume. In addition to working in a research laboratory, Rodney gained valuable industry experience through two internships with Schreiber Foods in Wisconsin, one after his junior year and another after completing his B.S. degree before he headed to North Carolina State's graduate program. Rodney completed a master's degree in food science at North Carolina State University in 2004 and then returned to Purdue to pursue a Ph.D.



Students Caitlinn Lineback and Keldon Cook, Rodney Green, Dr. Brian Farkas

## **ALUMNI RECOGNITIONS**

#### Lindsay (Miller) Wisener (B.S. 2007, M.S. 2008)

Principal Consultant, WiseBev, LLC, Fountain City, Indiana

After earning a bachelor's degree in food science in 2007, Lindsay Wisener stayed at Purdue University and fast tracked to earn a master's degree in food science one year later in 2008 under the mentorship of Dr. Kirby Hayes. The breadth of Lindsay's experiences in the food industry began with an internship after her junior year with Kraft Foods. After completing the M.S. degree, she joined Mead Johnson Nutrition in Evansville, Indiana for 2 ½ years as a product develop scientist where she worked on new products and ingredient replacements of existing dairy-based liquid products. Lindsay moved on to gain more experience in product develop for Kellogg's in Battle Creek, Michigan. She then returned to Indiana to do research and development work for Weaver Popcorn in Noblesville.



Students Lindsey Bullerman and Noah Van Horn, Lindsay Wisener, Dr. Brian Farkas

The breadth of Lindsay's experiences working for medium to large food and beverage companies along with the professional relationships she developed have equipped her to help others reach their dreams. In 2016, Lindsay took the plunge and started her own business, WiseBev, LLC where she is the principal consultant specializing in the functional and nutritional beverage sector. Lindsay uses her industry experience and her own pilot plant facility to help start-up and existing companies with technical aspects of beverage development for the retail market such as aseptic processing, functional and nutritional formulations, powder and liquid manufacturing and processing, function and flavor development.

#### Anne (Secor) Zwink (B.S. 2009)

Manager & Winemaker, Soldier Creek Winery, Fort Dodge, Iowa

Anne Zwink is general manager and winemaker of Soldier Creek Winery, a family owned and operated business in Fort Dodge, Iowa. Anne Zwink's interest in winemaking began in 2002 after her family's 50-year-old farm operation suffered a barn fire. The Secor family decided at that point to diversify the operation and plant cold-hardy grapevines where the barn formerly stood. Solider Creek winery started in 2005. By 2007, the family was planting and working 6.5 acres of vineyard on their Iowa farm. Soldier Creek's first wine production won four medals at the INDY International Wine Competition, a competition that draws nearly 2,000 wine entries from around the world. Soldier Creek's 2013 Brianna received one of the competition's highest honors, a double gold, that year. The success of the vineyard and winery have resulted in an expansion of 3.5 more acres into production in 2015.

Anne came to Purdue in 2006 and completed a bachelor's degree in food science in 2010. During her time at Purdue, Anne worked in the Department's Enology Laboratory with Jill Blume and Dr. Christian Butzke. She did undergraduate research on the survival of acid-resistant foodborne pathogens in commercial wines. Anne was also a teaching assistant for Dr. Butzke's FS 470 Wine Appreciation course for four semesters.



Anne's genuine interest in applied science and her special enthusiasm for wine drove her to pursue an advanced degree. In 2012, she completed a master's degree in food science at Washington State University where her research focused on analytical measurements for red wine characterization and designing and conducting sensory panels for various food products. After completing her M.S. degree, Anne did a six-month internship with E & J Gallo Winery in Modesto, California where she expanded her winemaking and wine sensory knowledge even more.

Students Caitlinn Lineback and Rio Lemkuil, Anne Zwink, Dr. Brian Farkas

## FACULTY/STAFF RECOGNITIONS FOOD SCIENCE DEPARTMENT AWARDS

#### Jack Long Outstanding Undergraduate Teaching Award:

Dr. Jack Long was and outstanding educator while a faculty member at Purdue. He was well known for his commitment to undergraduate students in the College of Agriculture, and the quality of their education.

#### Dr. Andrea Liceaga

Professor

**Outstanding Undergraduate Faculty Counselor Award:** 

#### **Dr. Kee-Hong Kim**

Professor

**Outstanding Graduate Educator Award:** 

#### **Dr. Owen Jones**

Associate Professor

**Outstanding Service to Students Award:** 

#### Allie Kingery

Undergraduate Academic Advisor

**Outstanding Service to the Department Staff Award**:

#### Mitzi Barnett

Graduate Program Coordinator

## **Dr. Haley Oliver**

Appointed to National Advisory Committee on Microbiological Criteria for Foods

Selected and delivered the 2018 Justin Smith Morrill Lecture during the Association of Public Land Grant Universities (APLU) national annual meeting. Founded in 1887, APLU is North America's oldest higher education association with member institutions in all 50 U.S. states, the District of Columbia, four U.S. territories, Canada, and Mexico. Dr. Oliver is the first female in the history of the organization to deliver this prestigious lecture.

2019 Purdue University Corinne Alexander Spirit of the Land-Grant Mission Award

Selected to receive the 2019 College of Agriculture's highest awards, the Corinne Alexander Spirit of the Land Grant Mission Award for excellence in integrating and promoting our core missions of discovery, engagement, and learning.

## Dr. Codelia "Cori" Running

Received the Association for Chemoreception Sciences 2019 Polak Young Investigator Award and will present her research on "Diet and Dietary Context Influence Expression of Salivary Proteins That May Modulate Oral Sensation" at the AChemS 41<sup>st</sup> Annual Meeting in Bonita Springs, Florida, April 14-17 2019

### Dr. Jozef Kokini

Finalist and received \$50,000 from Purdue Ag-celerator fund for his startup ZeaVaxx, LLC that is developing plant-derived nanoparticles that can improve animal vaccines.

## Dr. Suzanne Nielsen

Inducted into Purdue's Great Book of Teachers







2018 Fall Food Service Faculty Retreat Group

## FACULTY/STAFF RECOGNITIONS

#### Dr. Amanda Deering

Recognized with the 2018 Outstanding Extension Faculty Award! The award is given each year to an Extension faculty member that has demonstrated "consistent dedication to, and demonstration of, excellence in education that helps make Purdue Extension a preeminent source of useful information to the people of Indiana". Dr. Deering's research and Extension activities focus on fundamental and applied aspects of fresh produce microbial food safety. From her work on internalization of pathogenic microorganisms in plants, to working with produce packing and processing operations, Dr. Deering has made a positive impact in produce safety across the nation and around the world.

### Dr. Lisa Mauer

Inducted into Purdue's Great Book of Teachers

2019 Institute of Food Technologists Research and Development Award.

"Dr. Mauer has developed an innovative research program in the field of food materials science that tackles important emerging and persistent problems related to the quality, safety, nutrition, and shelf-life of low and intermediate-moisture foods."

"Her work has emphasized understanding the effects of processing and storage conditions on the structure-function relationships of food ingredients and ultimate food shelf life, with an increasing focus on the effects and control of ingredient architecture and water-solid interactions for vitamin and bioactive ingredient delivery as well as added sugar reduction strategies."

## Dr. Yaohua "Betty" Feng

2019-20 Purdue University Scholarship of Engagement Fellow



Dr. Lisa Mauer in the Lab.

## Dr. Yuan Yao

Finalist and received \$50,000 from Purdue Ag-celerator fund for his startup ZeaVaxx, LLC that is developing plant-derived nanoparticles that can improve animal vaccines.

The work of our faculty, staff, and students made headline news. Here are some of the titles and summaries. Check out the Purdue Newsroom and other news channels for full stories.

## **Dr. Bruce Applegate**

"Technology turns smartphones into on-thespot detectors for foodborne illnesses, other dangerous contaminants", Purdue News

## **Dr. Amanda Deering**

"Salmonella outbreak does not involve Indiana-grown melons", Purdue News

### Dr. Arun Bhunia

BARDOT optical scattering technology for rapid detection of foodborne pathogens highlighted on cover of Analytical and Bioanalytical Chemistry, Vol. 410 Issue 22

### Dr. Bruce Hamaker

Quoted in USA Today in article "I. Love. Bread. Why your love affair with carbs doesn't have to end"

## Wine Grape Team Dr. Christian Butzke, Jill Blume, Kate Barnett

"Purdue offers expertise that fuels growth for Indiana wineries", Indianapolis Business Journal

#### Deklin Veenhuizen

Aug. 1, 2018 Destination Purdue article "Sister plays career matchmaker for food science major" by Khyleigh North

#### **Dylan Morton**

Aug. 15, 2018 Destination Purdue article "Art and science of food offer junior a feast for his mind" by Khyleigh North



## STUDENT RECOGNITIONS

## 2019 Zamorano University Research Interns

Pictured (left to right): Juan Figueroa (Dharmendra Mishra Lab), Juan Velasquez (Jen-Yi Huang Lab), Donald Molina (Qin Xu Lab), Edward Moncada (Lavanya Reddivari Lab), Juan Archila (Betty Feng Lab) and Aquileo Gonzalez (Bruce Applegate Lab).

#### Jose Bonilla

Institute of Food Technologists protein division, 1<sup>st</sup> place oral presentation

Global Food Science Student Competition, Gold, poster

#### **Brianna Britton**

Global Food Science Student Competition, finalist, poster

#### **Chris Cheng**

Institute of Food Technologists Nutraceuticals and Functional Foods Division, 2<sup>nd</sup> place poster

#### Gabriela "Gaby" Calzada Luna

American Oil Chemist Society Edible Applications Technology-Protein & Co-Products Division, 2<sup>nd</sup> place poster

#### Yezhi Fu

2018 Purdue Food Science B. J. Liska Teaching Assistant Award for FS 363 Food Microbiology Lab

#### **American Society of Baking**

#### Felicia Hall

2019 Purdue Food Science B.J. Liska Teaching Assistant Award for FS 435 Sensory Science

#### Anna Hayes

Institute of Food Technologists feeding Tomorrow General Graduate Scholarship

Institute of Food Technologists poster competition finalist

#### Morgan Malm

Institute of Food Technologists, 2<sup>nd</sup> place food packaging poster

#### Arianna Marcia

Global Food Science Student Competition, Bronze, oral presentation

#### Anbuhkani "Connie" Muniandy

2018-19 Purdue University Graduate Student Government Senator

Purdue Agricultural & Biological Engineering 6<sup>th</sup> Annual Research Poster Symposium, 1<sup>st</sup> place poster

Team of graduate students Sarah Corwin, Pablo Torres Aquilar, Anbuhkani Muniandy and Rachel Jackson, placed 2<sup>nd</sup> at national competition for their gluten-free pita pocket, which includes three different ancient grains.



#### Leigh Schmidt

Institute of Food Technologists Protein Division, 1<sup>st</sup> place poster

Institute of Food Technologists Carbohydrate Division, outstanding volunteer award

#### Manoj Ram Krishna Sawale

International Society of Beverage Technologists scholarship

#### **Pablo Torres Aguilar**

Purdue University Center for Instructional Excellence Teaching Academy, Graduate Teaching Award

#### Tongyu Sophie Wu

2018 Purdue Food Science B. J. Liska Teaching Assistant Award for FS 363 Food Microbiology Lab

#### Lei Shelly Xu

Institute of Food Technologists Protein Division, 2<sup>nd</sup> place oral presentation

## 2018-19 Institute of Food Technologists Student Association Executive Board

President: Anna Hayes Vice President: Dylan Morton Secretary: Adrienne Voelker Treasurer: Brandon Lehn

## Phi Tau Sigma Honor Society Chapter of the Year!

The 2017-18 Hoosier Chapter advised the Dr. Suzanne Nielsen and led by President Anna Hayes and President Elect/Treasurer Shreya Sahasrabudhe was recognized as Chapter of the Year at the 2018 IFT Annual Meeting.

President: Shreya Sahasrabudhe President Elect: Sarah Corwin Treasurer: Anna Hayes New Inductees:

Merve Yildrim Erturk

Miguel Angel Alvarez Gonzalez Anbuhkani "Connie" Muniandy Caitlinn Lineback



2019 Phi Tau Sigma Induction Lunch Group



### **Student Product Development Teams**

Purdue Student Soybean Innovation Competition !st Place Team Stroy (Soy Drinking Straw)

Morgan Malm, Natalie Stephenson, Ruth Zhong

Undergraduates Natalie Stephenson (Management), Ruth Zhong (Electrical and Computer Engineering) and Food Science Ph.D. student Morgan Malm (B.S. '16) won 1<sup>st</sup> place in Purdue's Soybean Competition for their drinking straw.



## IFTSA 2019 Midwest Regional Meeting held at Purdue

Co-chaired by Anna Hayes and Erin Sukala

## 2018-19 College of Agriculture Outstanding Senior: Caitlinn Lineback

## 2019 Purdue Undergraduate Research Conference

Han Chen

1<sup>st</sup> place poster "Food Safety Education Among Health Professionals in China and Peru" mentored by Dr. Betty Feng

Emily Chuang

2<sup>nd</sup> place poster "Food Safety Knowledge and Perception of Young Adults with Shared-Use Kitchens" mentored by Dr. Betty Feng

### 2018-19 IFTSA and Mars Product Development Competition Team

Gabriela "Gaby" Calzada Luna Noah Van Horn Mathew "Jake" Uhlmansiek

Kelden Cook Alyson McGovern

## 2018-19 IFTSA Smart Snacks for Kids Team Product Development Team

Elise Covrett Tess Dobosz Kendall Green Erica Grush Bridget Owens

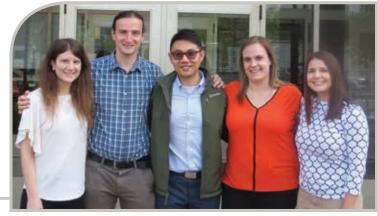
## Purdue's Chapter of the Institute of Food Technologists Student Association (IFTSA) Outstanding Chapter for Organizational Growth!

Led in 2017-18 by Executive Board members Jose Bonilla, Adrienne Voelker, Elena Bailoni, and Meaghan Boucher, and advised by Laurie Van Keppel and Dr. Joe Kokini, the Purdue chapter was recognized at the 2018 IFT Annual Meeting.

## STUDENT RECOGNITIONS

## Food Science Graduate Student Association

President: Anna Hayes Vice President: Adrienne Voelker Secretary: Morgan Malm Treasurer: Enrico Federici Social Chair: Bruce Zhang





Left to right: Anna Hayes, Enrico Federici, Bruce Zhang, Adrienne Voelker, Morgan Malm

## 2018-19 Outstanding Food Science Undergraduate Student Award

Senior: Caitlinn Lineback Junior: Noah Van Horn Sophomore: Erin Sukala Freshman: Caroline Edmondson

### 2018-2019 College Bowl Team

Lindsey Bullerman Monique Chung Enrico Federici Joe Gleason Renner Guntz (captain) Maddie Harper

### Allyssa Kelley Stephanie Roth Belen Salazar Noah Van Horn Adrienne Voelker (coach) Travis Woodbury



### 2017-2018 College Bowl team placed 2nd in National Finals!

The team: Erin Sukala, Stephanie Roth, Halak Mehta, Adrienne Voelker, Shreya Sahasrabudhe, Abbie Sommer (captain), Cameron Wicks, Chris Cheng

## **Food Science Club**

President: Dylan Morton Vice President: Brandon Lehn Secretary: Tara Gerig Treasurer: Olivea Glaser Ag Council Representative: Erin Sukala Event Committee Chair: Noah Van Horn



Left to right: Noah Van Horn, Olivea Glaser, Erin Sukala, Tara Gerig, Dylan Morton, Brandon Lehn

## 54% OF UNDERGRADUATE FOOD SCIENCE STUDENTS AWARDED SCHOLARSHIPS TOTALING \$470,650

#### \$128,050 of the total was awarded from the Food Science Deparment thanks to our generous donors below:

#### \*Alumni & Friends

(See engraved bricks in Nelson Hall lobby for individual donors who make this fund possible. If you would like to donate to this fund and have your name engraved on a brick in the lobby of Nelson Hall, contact foodsci@purdue.edu.)

> Han Chen Emily Chuang Keldon Cook Ashley Gordish Bridget Owens

#### **Fred Babel Scholarship**

Kyle Banaszak Lindsey Bullerman Molly Carroll Maryclaire Chamberlain Muxuan Chen Keldon Cook Elise Covrett Elizabeth De Acetis Tess Dobosz Caroline Edmondson Joseph Gleason Erica Grush Madeline Harper Victoria Hays Lauren Kumpf Micah Lehe Brandon Lehn John Rio Lemkuil Joshua Martin Samantha Matisko Jordan A'Lee McGrue Bryce Myers Erin Raver Julia Schmidt Ireland Stevens Erin Sukala Noah Van Horn Rowan Wallar Neil Zhao

#### Gary & Mary Chenoweth Scholarship

Caroline Edmondson Victoria Hayes

#### Arnold "Bud" & Cathy Denton Scholarship Keldon Cook

#### **Gary & Sara Hellmich Scholarship** Lindsey Bullerman Ireland Stevens

#### Food Science Department Scholarship

Molly Carroll Elise Covrett Elizabeth De Acetis Caroline Edmondson Kendall Green Caitlinn Lineack Joshua Martin Tejashree Shah Erin Sukala Noah Van Horn

#### Imran Kazem Scholarship

Trinity Lucas Rowan Wallar

#### **Lessa Martin & James Kincaid Scholarship** Lindsey Bullerman Rowan Wallar

#### Peter Mauger & Sarah Naas Mauger Scholarship

Maryclaire Chamberlain Elise Covrett Joeseph Gleason Micah Lehe Brandon Lehn Bridget Owens

#### Sarah Naas Mauger Veil Scholarship

Tara Gerig Erica Grush Renner Guntz Rebecca Jarboe Micah Lehe Christina Mussmann Ella Pheifer Noah Van Horn

#### **Red Gold Scholarship**

Caroline Edmondson Olivea Glaser Lauren Kumpf Rowan Wallar

#### **Ronald Rice Scholarship**

Molly Carroll Caroline Edmondson Joseph Gleason Owen Vaughn

#### Kathryn "Katie" Rippel Scholarship

Micah Lehe

#### John & Beverly Wisler Scholarship

Keldon Cook Joseph Gleason

#### Purdue's Top Merit Scholarship Recipients 18% of food science students totaling \$124,000

#### **Purdue Presidential**

Lindsey Bullerman Maryclaire Chamberlain Kelden Cook Elise Covrett Elizabeth De Acetis Tess Dobosz Caroline Edmondson Joseph Gleason Kendall Green Madeline Harper Juna Johnson Brandon Lehn John Rio Lemkuil Joshua Martin Samantha Matisko Christina Mussmann Julia Schmidt Rowan Wallar

#### **Purdue Trustee**

Lauren Kumpf Erin Sukala

#### External Scholarship

Mid America Food Processors Scholarship Amanda DuMerer Stephanie Roth

Virginia Dare – Erica Grush

Red Gold Internship Scholar Emily Chuang

## **MOVING ON: GRADUATES** AND NEXT STEP

### **Degrees Awarded**

August 2018 **Emma Barber** (M.S. mentor: Jozef Kokini) John "Jack Barnett (M.S. mentor: Haley Oliver) **Cierra Crawford** (M.S. mentor: Cori Running) **Paula Duarte Guevara** (M.S. mentor: Haley Oliver) Luis Fernando Maldanado Mejia (Ph.D. mentor: Jozef Kokini) **Breanna McArthur** (Ph.D. mentor: Rick Mattes) Angarika Rayate (M.S. mentor: Owen Jones) **Randol Jose Rodriguez Rosales** (Ph.D. mentor: Yuan Yao) December 2018 **Christopher Cheng** (Ph.D. mentor: Owen Jones) **Rishi Drolia** (Ph.D. mentor: Arun Bhunia) **Marwa El Hindawy** (Ph.D. mentor: Bruce Hamaker) **Collin Felten** (M.S. mentor: Lisa Mauer) **Kelly Higgins** (Ph.D. mentor: Rick Mattes) Andrew Hirsch (M.S. mentor: Owen Jones) Chen Lu (M.S. non-thesis mentor: Jen-Yi Huang)

#### Anbuhkani "Connie" Muniandy

(M.S. mentor: Dharmendra Mishra) Xingyun Peng (Ph.D. mentor: Bruce Hamaker) Seda Tuncil (Ph.D. mentor: Lisa Mauer) Lei "Shelly" Xu (Ph.D. mentor: Bernie Tao) Ximena Yepez (Ph.D. mentor: Jozef Kokini)

<u>May 2019</u> James Chapa (M.S. mentors: Brian Farkas and Jen-Yi Huang)

## **B.S. CLASS OF '19 STATS**

29%

had one internship

43%

had two

internships

29%

had three

internships

63%

had an

international

experience

**31%** continuing education

**56%** accepted industry jobs

**13%** still seeking

**63%** did research

**88%** did internships

#### Ave. salary for B.S. \$56,000

#### Simran Kaur

(Ph.D. mentor: Fernanda San Martin)

Shreya Sahasrabudhe (Ph.D. mentor: Brian Farkas) Riya Thakkar

(M.S. mentor: Steve Lindemann) Xiaowei Zhang (Ph.D. mentor: Bruce Hamaker)

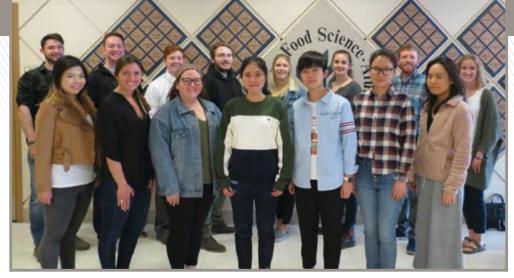
> **B.S. Graduates Kyle Banaszak Maryclaire Chamberlain** Han Chen Wenyi Fu **Zoe Graves** Siqi Hu **Kramer Kiser Brandon** Lehn **Caitlinn Lineback Dvlan Morton Erin Raver** Yifei Shen Monica Stampfli Matthew "Jake" Uhlmansiek Cecilia Yiu

100% of Purdue Food Science students secure employment or continue their education within six months of graduating. Thank you to the following companies that have recently hired and/or mentored our students with developing professional skills.

Abbott Laboratories Sazerac Company Hershev's Skidmore Sales & Distributing Ameriqual Hormel Cargill Morgan Foods **Sugar Creek Malts** Conagra Brands National Confectioner's US Foods Association Covance Walt Disney Company Nestle Weaver Popcorn DiNova (China) Perfect Bar, LLC. Edlong Weston Foods Pepsico Eurofins Wicks **Red Gold Griffith Foods** YouBar. Inc. **Res Natura** Heartland Blue Buffalo

## PROFESSIONAL DEVELOPMENT DAYS PARTICIPANTS:

Aldi Bloomer Chocolate Cargill Charlie Baggs, Inc. Clason Quality Chocolates Conagra Brands CraftMark Bakery DeWolf Eli Lillly Endangered Species Chocolate Foxtail Foods Hormel Foods KraftHeinz Morgan Foods Nestle Beverages Newlyweds Foods North Cliff Consultants Rumi Spice Sensient Colors Van Drunen Farms Vivolac Cultures White Castle



## B-S-Degree-Class-of-2019

Front row: Cecilia Yiu, Maryclaire Chamberlain, Erin Raver, Yifei Shen, Siqi Hu, Han Chen, Wenyi Fu

Back row: Matthew "Jake" Uhlmansiek, Brandon Lehn, Kramer Kiser, Kyle Banaszak, Monica Stampfli, Zoe Graves, Dylan Morton, Caitlinn Lineback

## THANKS TO OUR SUPPORTERS

Thank you to all of our alumni, donors, friends, and industry professionals who support the Department of Food Science with your time, talent, and resources. You all are an important factor I making this department, our students, and ultimately the world's food supply better. Whether you spoke in a class, mentored a student, participated in Food Science Student Professional Development Days, encouraged a prospective student to consider our academic program, hired our students for internships and full-time positions, sponsored faculty research, are a member of one of our centers or Industrial Associates group, or gave a donation ...we say a big **THANK YOU!** 

## **2018-19** Industrial Associates Member Companies

Cargill Clabber Girl Conagra Brands Danone North America General Mills Heartland Food Products Group Hershey's Kalsec Morgan Foods Nestle R&D Center PacMoore

PepsiCo Red Gold Skidmore Sales and Distributing Company Verdure Sciences

## Food Science Vision, Mission, and Values

#### Vision

To be the global leader in transformation of lives through the science of food.

#### Mission

We engage in discovery-driven activities leading to innovative learning and outreach that:

- Enhance health, safety, quality, and sustainability of foods;
- Prepare the next generation of leaders in food science; and
- Address stakeholder needs.

#### Values

We are the Department of Food Science at Purdue University – a community committed to excellence in all aspects of the land-grant mission; teaching, outreach and discovery. We seek to embody our mission, vision and values statements, not in words but through our actions. As such, this values statement communicates who we are, and strive to be.

As a team, we collaborate with respect but challenge each other to defend what we believe; understanding that healthy debate leads to stronger results. With challenge comes innovation in discovery, critical thinking in learning and programs with lasting impact. Through this process we produce leaders in thought and action.

Recognizing that the root and very strength of our discipline is diversity, we affirm this by thinking globally and embracing differences. Our commitment to respect for all allows freedom of thought, integrity of science and diversity of people. With a passion for improving the lives and livelihood of our stakeholders, we resolve that these values will be used to guide our mission and inspire our actions.

## PURDUE UNIVERSITY.

**Department of Food Science** 

Philip E. Nelson Hall of Food Science 745 Agriculture Mall Drive West Lafayette, IN 47907

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