

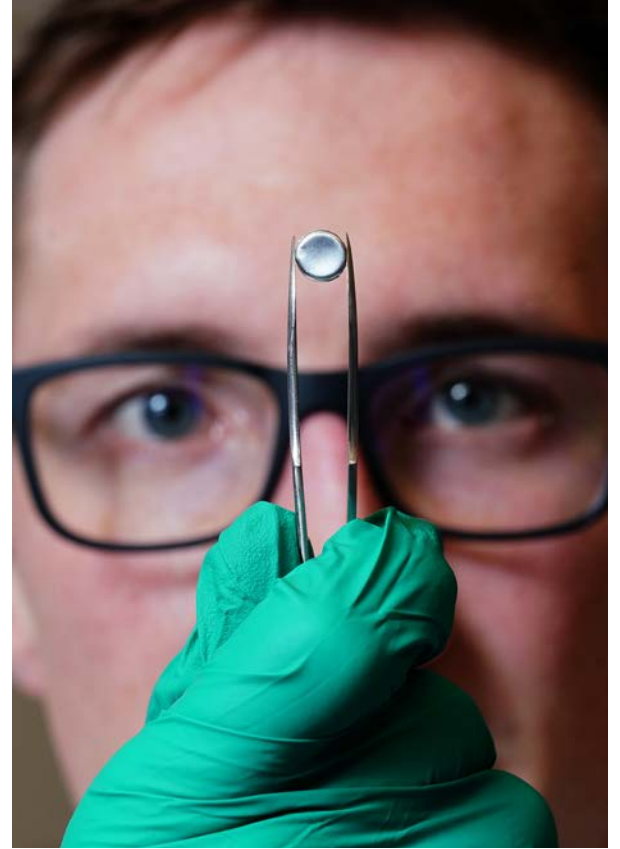
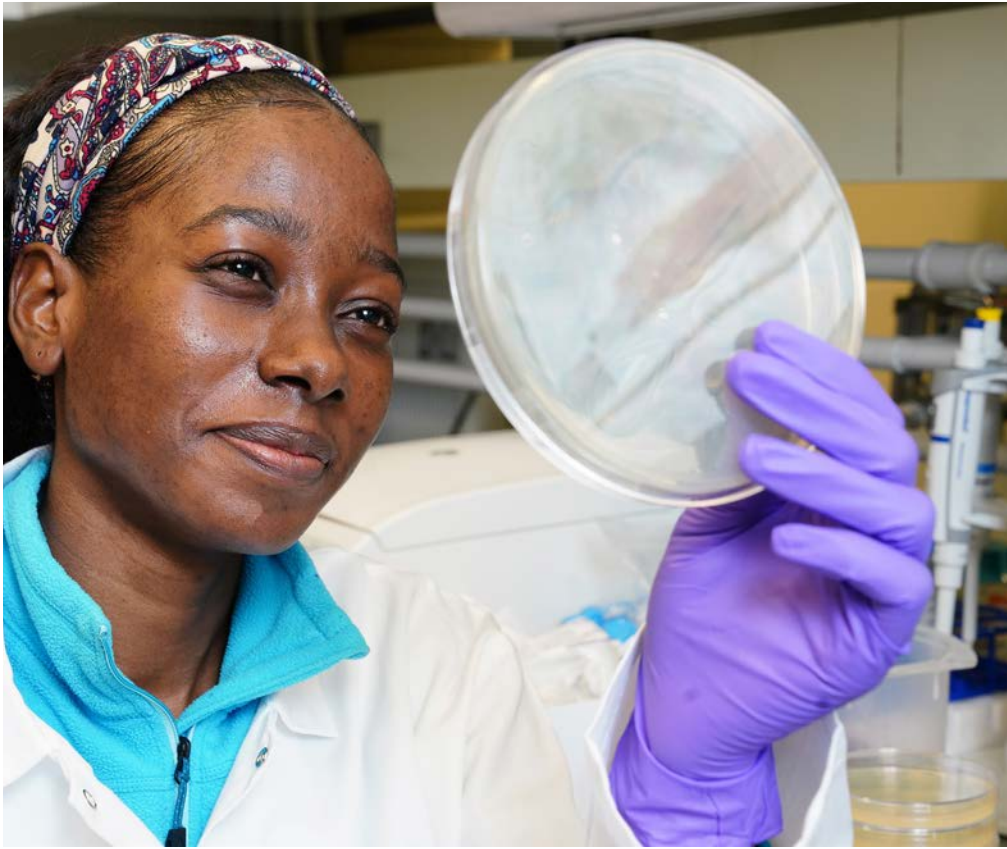


PURDUE
UNIVERSITY®

DEPARTMENT OF

2021 FOOD SCIENCE

ANNUAL
NEWSLETTER



FROM THE DEPARTMENT HEAD

I am a big proponent of Yogi Berra's advice "If you come to a fork in the road, take it." In my case, both definitions of "fork" applied when Dean Karen Plaut approached me in November 2019 about serving as interim head of Purdue's Department of Food Science. It certainly represented a fork in the road of my academic career as an Agricultural Economist but there was also a tremendous opportunity to fork some new knowledge into my brain – and the great faculty and staff in the Food Science Department have ably educated me in all the impactful work they do. We accomplished a lot in the past 18 months from a review of the department's long-term strategy to dealing with an unexpected global pandemic and its far-reaching implications for teaching, research, outreach, and departmental finances. Along the way, we celebrated the accomplishments of outstanding colleagues and students that are highlighted in this newsletter, and perhaps most importantly hired a new permanent head for the department. I am really excited about the future of Purdue Food Science under the leadership of Dr. Senay Simsek. Well, Senay just keep in mind that what Yogi said about baseball is also true of being a department head – it's "90 percent is mental and the other half is physical." I have thoroughly enjoyed my stay in Food Science, I treasure the friends among the Purdue Food Science family that I have come to know, and I look forward to future collaborations. Hail Purdue!

Cheers,
Ken

Dr. Ken Foster, PhD
Interim Head | Department of Food Science
Professor | Department of Agricultural Economics

Purdue Food Science is one of the premier food science programs globally, and we all know that this did not happen by coincidence. These achievements have come through the efforts of past leaders, Dr. Ken Foster, and other past heads and their cooperation with the faculty and staff in the Department. The Department has a long history of incredible accomplishments of the faculty, staff, and students. I now have the opportunity to build on that success and impact.

Moving the Department forward is not just about me; it's about us. Subsequently, it's about our stakeholders, it's about our faculty, it's about our staff, and it's about our students. The Department has a tremendous capacity to meet the needs of the state, the country, and the world. Collectively we can look at what's essential to move our program forward. Innovation is a massive part of bringing us to the forefront at the global level in teaching, research, and outreach. The Department as part of Purdue can epitomize the representation of the contemporary land grant of the 21st century. During times of challenge and change, the Food Science department must be in the present while looking to the future to address contemporary problems through collaboration and innovation. I am privileged to be leading this tremendous Department and have great excitement for where the future will take us.

Department Head
Dr. Senay Simsek

Dr. Senay Simsek
Professor and Head | Department of Food Science
Dean's Chair in Food Science

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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www.facebook.com/PurdueFoodScience



Join the LinkedIn
Purdue Food Science Alumni (Closed Group)



Follow us on Twitter
[@PurdueFoodSci](https://twitter.com/PurdueFoodSci)

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

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Editor and Photographer: **Laurie Lambert Van Keppel**
Contributing Photographers: **Tom Campbell, Adrian Peacock-Downey**

ANNOUNCEMENTS

FAREWELL

Sheri Fell

Food Science Business Office

After 35 years of service to Purdue University, Sheri retired in December 2020. For three decades, Sheri was the face of the Food Science Department business office assisting faculty, staff, and students. Sheri will continue her career as a real estate broker and plans to spend more time enjoying her family and lake activities.



Erik Kurdelak

Pilot Plant Manager

After 17 years of service to Purdue University, Erik returned to the private industry. For 12 years Erik held several positions in Purdue's dining operations of central production kitchen, retail restaurants, and food stores processing and distribution. In 2015, Erik returned to his academic home department to serve as the Food Science Department pilot plant manager. In February 2021, Erik joined Wick's Pies in Winchester, Indiana as quality control manager.



ANNOUNCEMENTS

WELCOME

Dr. Eun Joong Oh

Assistant Professor



Eun Joong Oh joined the Department in August 2020 as an assistant professor. His research is centered on fermentation science and the biotechnological production of fuels and value-added chemicals using engineered microorganisms. His research focuses

specifically on genome engineering of polyploid yeast strains for industrial purposes by rationally and systematically generating high genomic mutational diversity. Dr. Oh aims to develop designer organisms with exquisite and predictable control architectures to govern the expression of a range of valuable traits.

Julie Hancock

**Research Operation Administrator
Feed the Future Innovation Lab for Food Safety**

Julie transitioned to the Food Science Department in October 2020 from the International Programs in Agriculture Office in Agricultural Administration where she has served as the program manager on several USAID projects for the past 3 ½ years. Prior to joining Purdue, Julie was engaged in international program management at Chemtura Corporation, a global chemical company. Julie holds an MBA with a specialization in human resources, as well as a project management professional (PMP) certification.



Marla Carey

**Business Assistant Lead
Food Science Business Office**



Marla joined the Department in April. She has been with Purdue since the fall of 2015 working in business offices in the Department of Psychological Sciences, the Polytechnic Institute, and most recently Student Life Dining. Prior to working at Purdue, Marla

worked as a license insurance agent. Marla has a Bachelor of Science degree in communications from Ball State University and recently completed an MBA through Purdue Global.

Dr. Senay Simsek

Professor and Department Head

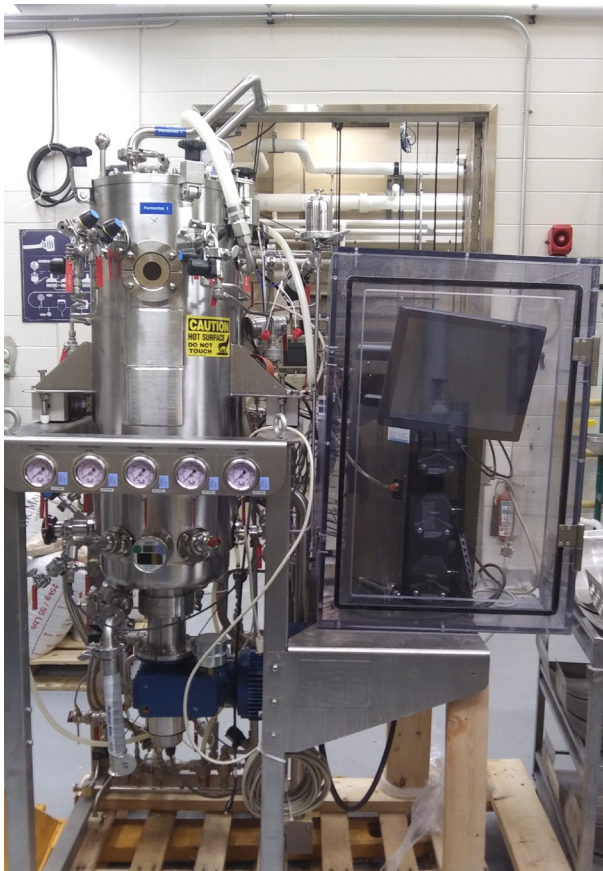
After completing a Ph.D. in food science at Purdue under the mentorship of Dr. Brad Ruehs, Senay has spent the last 14 years as an endowed professor of food science at North Dakota State University where she has built an outstanding research team addressing food chemistry and carbohydrates. She has received numerous awards for research and teaching and published more than 200 peer-reviewed journal articles. Senay has been the Bert L. D'Appolonia Cereal Science and Technology of Wheat Endowed Professor. She becomes the Purdue Food Science Department's fourth Head on July 1, 2021.



DEPARTMENT HIGHLIGHTS

B.S. Fermentation Major Launching in Fall 2021

Responding to the industry's increased demand, the Food Science Department will launch a new fermentation sciences bachelor's degree program in fall 2021. The fermentation committee Dr. Bruce Applegate, Allie Kingery, Dr. Steve Lindemann (chair), Dr. Eun Joong Oh, Laurie Van Keppel, and Dr. Yuan Yao spent fall 2020 developing their proposal which they submitted to the food science faculty in January 2021. Beyond traditional food fermentation industries in the U.S., diverse industries employing microbial fermentation are well-established and growing rapidly. In contrast to the limitations of disciplinary microbiology programs, the strong tradition of applied microbiology housed within Purdue Food Science is paired with significant hands-on experience in engineering, with respect to industrial food processing. Within the Department exist both long-standing expertise in microbial genetics and ecology as well as engineering applied to industrial-scale food processing, expertise sets that have been recently enhanced by the hire of Dr. Eun Joong Oh in fermentation sciences. In addition, the department already operates within a strong integrated theoretical-practical curriculum, inculcating both the basic knowledge and hands-on experience required by the food industry. The committee developed a curriculum which will prepare students to work in a wide range of industries including food and beverage, biopharmaceutical, and biofuels.



To support the Purdue Department of Food Science's mission to train food and fermentation scientists, Pepsico donated a 50 Liter New Brunswick™ BioFlo® 610 Mobile Fermenter System!

Butzke appointed as first innovation and entrepreneurship fellow

In January 2021 the College of Agriculture appointed Dr. Christian Butzke as its first innovation and entrepreneurship fellow to support innovators. In this role, he will mentor faculty, staff, and students considering entrepreneurship and assist



and assist Karen Plaut, the Glenn W. Sample Dean of Agriculture, to develop and implement entrepreneurship and commercialization strategies for the College of Agriculture. Prior to his career in academia, Christian was a commercial winemaker. As an innovator, he is the

co-founder of VinSense, a company assisting in wine grape agriculture through Purdue-patented technology.

Deering and Crandall partner in data in produce safety webinar

Amanda Deering of Purdue's Department of Food Science and Jennifer Crandall, CEO of Safe Food En Route, LLC, and Purdue Food Science alumna partnered in March 2021 to offer a webinar "Data in Produce Safety" as part of a College of Agriculture spring webinar series featuring experts in data science and digital agriculture. Amanda and Jennifer discussed how this information can be used for Food Safety Modernization Act (FSMA) compliance. The series presentations were recorded and posted on the Purdue Digital Ag Resources website (<https://ag.purdue.edu/digital-ag-resources/>).

First of its kind Big Data Safe Food Conference

The COVID-19 pandemic did not stop Purdue food science faculty from hosting a first of its kind conference. Originally planned for May 2020, the conference pivoted to a virtual conference held in October 2020. Uniting experts in big data and food safety from industry, government, and academia coordinators Drs. Arun Bhunia and Betty Feng arranged discussions about how big data can help predict, track, trace, and tag products to avoid contaminated supply chains, economic losses, and foodborne disease.

Food safety innovation lab grants \$2.9M for new global projects

The **Feed the Future Innovation Lab for Food Safety**, co-located at Cornell and Purdue University, has announced \$2.9 million in grants for research projects to improve food safety and prevent foodborne illness in Bangladesh, Cambodia, Kenya and Senegal.

The competitively funded, 3 ½-year projects will focus on identifying knowledge gaps, enhancing local capacity for food safety research, and translating research into improved food-handling policies and practices.

“Bacterial pathogens are responsible for most of the burden of foodborne disease worldwide, yet work on bacterial food safety is underfunded, understudied and undersupported,” said Haley Oliver, Food Safety Innovation Lab (FSIL) director and professor of food science at Purdue University. “Our team of FSIL technical experts and researchers is well suited to address this issue and support this work.”

They are changing the world in way that is worthy of our tribute and pride. Check out their new video: <https://www.youtube.com/watch?v=9bL2jTKmIag>



Colleagues, collaborators and friends Drs. Haley Oliver and Amanda Deering

Cochran Fellowship Award

The Purdue University Food Science extension program led by Dr. Dharmendra Misha and supported by Extension Specialist Rhonda Taylor was recently chosen to host the United States Department of Agriculture Foreign Ag Service Cochran Fellowship Program on “U.S. Food Processing Ingredients & Additives for India”. The Cochran Fellowship Program provides short-term training opportunities to agricultural professionals from middle-income countries, emerging markets, and emerging democracies. The program will provide hands-on training for seven visiting fellows from India to enhance their technical knowledge and skills in areas related to food manufacturing. Approximately 600 Cochran fellows come to the United States each year, generally for 2-3 weeks, to work with U.S. universities, government agencies, and private companies.



Validation workshop 2019 participants in pilot plant

Robert Scholle honors Phil Nelson and Suzanne Nielsen with new food science endowments

The department received two significant gifts in February 2021 due to the generosity of Robert Scholle. The first is an endowed chair honoring the many contributions of Dr. Phil Nelson to our department's reputation and the food industry. Mr. Scholle's generosity was such that the chair is unrestricted to any specific sub-discipline within Food Science. Below is the key bit of text from the endowment agreement.

"Selection of the Dr. Philip E. Nelson Chair in Food Science will be made with the sole intention of attracting and/or retaining a scholar with expertise in the food science area. The recipient is expected to provide leadership, discovery, learning, and engagement related to Food Science."

Mr. Scholle's second gift to the department is an endowment to support students and student activities. This fund is named the "Suzanne Nielsen Food Science Student Support Endowment Fund" honoring the many contributions of Dr. Nielsen to the Department of Food Science and in particular her significant support for and mentorship of students. Below is an excerpt from the endowment agreement that outlines the proposed uses of future endowment proceeds.

"The primary purpose of this fund is to provide undergraduate and/or graduate student support for activities and educational expenses, including, but not limited to, participation in academic competitions, employment opportunities for student workers in research, travel expenses to expose students to the food science industry, or the creation and adoption of unique learning environments."

Phil Nelson was a faculty member from 1967-2010 and served as the first food science department head from

1983-2003. He built the department by pioneering strong industry relationships with companies like Scholle. Phil's academic research led to multiple commercialized technologies that revolutionized the food and beverage industry's aseptic processing, bulk storage, and packaging



capabilities. These contributions led to him receiving the World Food Prize in 2007. Phil continues to contribute to the department as one of the aseptic workshop instructors, mentoring faculty, staff and department heads, and nominating alumni for recognitions.

Suzanne Nielsen joined Purdue's faculty in 1983. She succeeded Phil Nelson as the second food science department head from 2003-2013. Suzanne's support of students and teaching has been recognized with multiple recognitions and culminated in her selection as the College of Agriculture's 150th Anniversary Professor in 2018. Suzanne's leadership and mentoring of students

through organizations such as Phi Tau Sigma Honorary Society led to many recognitions not only for Suzanne, but also for her students and the organizations. Suzanne will retire in December 2021. The Department of Food Science invites you to join us in honoring Suzanne's accomplishments and upcoming retirement by making a donation to the newly established Suzanne Nielsen Food Science Student Support Endowment Fund. Donations in honor of Suzanne can be made online at connect.purdue.edu/nielsen or by contacting Cameron Borthwick in the College of Agriculture Development Office at csborthwick@purdueforlife.org or 765-494-9651.



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.

2020 DISTINGUISHED AG ALUMNI AWARD

Curt Emenhiser (B.S. 1989)

Food Research & Development Leader
Fremont, Michigan

Curt Emenhiser's work has improved the availability and nutritional quality of baby food products and processes on a global scale. He has led research efforts concerning nutrients in fresh and thermally processed fruits and vegetables through his work at Nestlé-Gerber and in academic collaboration with faculty at Purdue, Ohio State, Cornell and other universities. His work has sought to improve the nutrient content and health benefits of processed foods, primarily baby foods.

Curt has held positions of increasing responsibility in product development since beginning his career as a food chemist at the Gerber Products Company in 1996. As vice president for global technology management at Nestlé-Gerber, Curt managed pilot plant operations; safety, health and environment; and other continuous improvement initiatives. He oversaw

more than 2,800 development or engineering trials to support innovation and capability development. In this capacity, he also provided technical assistance to all Nestlé baby food factories worldwide.

As the company's vice president of global innovation, Curt led innovation platform teams in product development, packaging and process engineering. His teams delivered some of the most successful products in company history, including Melts (a freeze-dried yogurt snack for toddlers), and such packaging innovations as a self-feeding pouch for toddlers.

During this period, the company attained record U.S. market share and more than doubled sales within its toddler segment. These efforts contributed to the 2007 sale of Gerber to Nestlé for \$5.6 billion.

Curt also has been instrumental in such improvements as implementing a stage-gate process, creating a culinary center and packaging design capabilities, and integrating Nestlé systems and work processes following the Gerber acquisition.

Curt is a premier member of the Institute of Food Technologists (IFT) and has chaired IFT's Great Lakes section and its Student Association. He has a dozen peer-reviewed publications in food chemistry and nutrition from his graduate research and technical roles at Nestlé-Gerber.

Due to COVID 19, Outstanding Food Science Award and Early Career Award programs were cancelled.

Forbes recognizes young entrepreneur for her formula for success

Story by Chad Campbell

"Congratulations! Well deserved. We're so proud of you!"

Michelle Egger, co-founder and CEO of BIOMILQ, woke up on Dec. 1 to an inbox full of congratulatory emails that left her completely confused.

"I'd been so focused on the scientific milestones we were working toward that it took me a couple of hours to figure out what in the world the emails were referring to," Egger recalled. "It was like the rest of 2020. Low lows and high highs, both coming out of nowhere."

Forbes selected Egger for its *30 Under 30* list for 2021, an annual compilation of the world's most promising young entrepreneurs.

Egger graduated from Purdue in 2015 with a degree in food science. In 2018, she left her job with General Mills to attend business school at Duke University in Social Impact & Entrepreneurship. She helped found BIOMILQ during her second year at Duke, in 2019. The company developed a new formula breastmilk, made by culturing mammary cells in their lab. The resulting product has similar nutritional value to traditional breastmilk.

"The infant formula on today's market is not as effective as traditional breastmilk in cognitive development, skeletal growth, muscular growth and development of the immune system," Egger explained.

"We're strong supporters of breastfeeding, but the reality is 84% of mothers in the United States move partially or entirely to infant formula in the first six months of their baby's life. Whether breastfeeding isn't possible because of medical reasons or personal choices, we want to create an alternative without dramatic health trade-offs."

While Egger says her work could have fit in one of several categories on the *30 Under 30* list, she was delighted to be featured within social impact. "What we're doing is an exciting entrepreneurial and technological pursuit, but we are most proud of the impact our product will have on the world. Being acknowledged for that potential made the recognition even sweeter."

In June, BIOMILQ earned the support of *Breakthrough Energy Ventures*, Bill Gate's investment firm, with \$3.5 million in funding.

Egger credits her time at Purdue as a key to her early-career success.

"Purdue was a great fit for me," she shared. "My department was hyper-focused on making sure all of the food science graduates were prepared to work within the industry as it exists today. The applied science prepared us to solve challenging, technical problems. Because of the methods the students learned, we are now finding ways to help people, build a market, improve efficiency and make things safer for our planet."

"The recognition from Forbes reflects how prepared I was to get up to speed quickly and succeed."



Michelle Egger
(Photo provided by BIOMILQ)



FACULTY/STAFF RECOGNITIONS

Purdue University Years of Service Recognitions:

10 years: Haley Oliver

15 years: Christian Butzke and Yuan Yao

30 years: Ken Foster and Laurie Lambert Van Keppel

35 years: Sheri Fell

Cory Brenner

College of Agriculture Unsung Hero Diversity Award

Christian Butzke

2021 Purdue Award for Exceptional Teaching and Instructional Support during the COVID-19 Pandemic – Innovation

2021 Purdue Online Excellence in Course Design and Teaching (Non-Credit) Award for the development and delivery of his non-credit course FS 47000: Wine Appreciation

I would like to use this opportunity to introduce myself in my new role as Innovation and Entrepreneurship Fellow, as I have been tasked to systematically encourage, grow and channel research and technology commercialization practices in our eleven departments, and progressively foster a strong culture of entrepreneurship within the College of Agriculture and beyond. CEB

Young Hee Cho

College Outstanding Continuing Lecturer/Clinical Faculty Award!

Award for Exceptional Teaching and Instructional Support during the COVID-19 Pandemic – In-Person Learning Environment

Amanda Deering

Purdue Cooperative Extension Specialists Association (PUCESA) Outstanding Early Career Extension Specialist Award

Betty Feng

Purdue College of Agriculture PK-12 Outreach and Engagement Emerging Faculty Impact Award

Purdue Scholarship of Engagement Fellow

Bruce Hamaker

Purdue College of Agriculture Corinne Alexander Spirit of the Land Grant Mission Award

Purdue College of Agriculture Lowell S. Hardin Award for Excellence in International Agriculture

https://mediaspace.itap.purdue.edu/media/2021+Spirit+of+the+Land+Grant+Award+Presentation/1_uyh3p91c



Bruce Hamaker

Allie Kingery

Purdue Award for Exceptional Teaching and Instructional Support during the COVID-19 Pandemic – Student Support

Joe Kokini

Purdue Award for Exceptional Teaching and Instructional Support during the COVID-19 Pandemic - Innovation

Haley Oliver

Purdue Faculty Insight Forum Fellow

Purdue University Faculty Scholar

Yuan Yao

Purdue Faculty Entrepreneurship Fellow

Laurie Van Keppel

Purdue College of Agriculture Outstanding Service to Students Award

Purdue Award for Exceptional Teaching and Instructional Support during the COVID-19 Pandemic – Student Support

FACULTY/STAFF RECOGNITIONS CONTINUED

FOOD SCIENCE DEPARTMENT AWARDS

2020-21 Jack Long Outstanding Undergraduate Teaching Award:

Young-Hee Cho

Dr. Jack Long was an 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.

2020-21 Outstanding Undergraduate Faculty Counselor (Mentor) Award:

Fernanda San Martin & Lavanya Reddivari

2020-21 Outstanding Graduate Educator Award:

Eun Joong Oh

2020-21 Outstanding Service to Students Award:

Mitzi Barnett

Graduate Program Coordinator

2020 Outstanding Service to the Department Staff Award:

Allie Kingery

Undergraduate Academic Advisor and Program Coordinator

Faculty Promotions Assistant Professor to Associate Professor

Dr. Jen-Yi Huang

Dr. Steve Lindemann



Mitzi Barnett

IN THE NEWS

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

Dr. Arun Bhunia

"6 Purdue innovators advance their technologies through Trask funding"

"Bioengineered probiotic could prevent Listeria infections"

Dr. Christian Butzke

"Popular wine appreciation course now being offered online"

"Affordable online course from Purdue is a compact but comprehensive package of essential knowledge for winemakers"

"Faculty ambassador program aims to support agriculture innovators"

Alumnae Mary Schneider (BS '16) and Allison Kingery (BS '09), food science academic advisor

"Entering its third year, fermentation minor holds major appeal"

Pilot plant manager Erik Kudelak and junior Alyson McGovern

"Boiler Bee Honey's second batch: How sweet it is!"

Dr. Andrea Liceaga and graduate student Uriel Urbizo

"Technology bolsters use of chia seeds to help improve health, slow signs of aging"

Dr. Dharmendra Mishra and pilot plant manager Erik Kurdelak

"New pilot plant equipment expands horizons for food science"

Anton Terekov

Behind the research – Analytical chemist and managing director of analytical services for the Whistler Center for Carbohydrate Research

Dr. Yuan Yao

"Start-up seeks partners to advance virus therapeutics"

"The winding path of COVID-19 research" in College of Ag Envision Magazine

STUDENT RECOGNITIONS

GRADUATE STUDENT/POST DOCTORATE ACHIEVEMENTS/AWARDS

Juan Archila

Consumer Food Safety Education
Virtual Conference Student
Scholar, March 2021

Xiangjian Bai

Purdue Graduate School Bilsland
Dissertation Fellowship, Fall 2020

Brianna Britton

Institute of Food Technologists
Graduate Student Scholarship,
March 2020.

International Association for
Food Protection Student Travel
Scholarship, March 2020.

Meat Industry Suppliers Alliance
Scholarship, July 2020.

USDA Agriculture and Food
Research Initiative-Predoctoral
Fellowship, July 2020

Jingfan Chen

Purdue Research Foundation
Grant, Fall 2020

Hansel Mina Cordoba

Consumer Food Safety Education
Virtual Conference Student
Scholar, March 2021

Sarah Corwin

College of Agriculture Graduate
Spotlight, Summer 2020



“My research is at the intersection of food science and nutrition – creating new foods that impact health. We are translating science all the way to something that could impact lives.”
—Sarah Corwin, PhD candidate,
Department of Food Science

Enrico Federici

Ag & Biological Engineering
Purdue Industrial research
symposium Biotechnology,
Regulations, Food Processing,
poster competition 1st place,
February 2020

Anna Hayes

Phi Tau Sigma Dr. Gideon ‘Guy’
Livingston Scholarship Recipient,
July 2020

Natalie Mudd

Ross Fellowship, Fall 2020

Connie Muniandy

Phi Tau Sigma Student
Achievement Scholarship
College of Agriculture Graduate
Spotlight, Summer 2021



Connie is developing an innovative technology for shelf-life prediction of food and beverages by building rapid, custom equipment for her study with the aim to reduce analysis time. “My research will contribute to decreasing food waste to some extent.”

Javier Cruz Padilla

International Society of Beverage
Technologist (ISBT) Scholarship,
October 2020

Adrianna Pilch

Purdue Ag Research and Graduate
Education Fellowship, Fall 2020

Adam Quinn

Purdue Ag Research and Graduate
Education Fellowship, Fall 2020

Monica Richmond

Lynn Fellowship, Fall 2020

Manalee Samaddar

Purdue Research Foundation
Grant, Fellowship, Fall 2020

Paige Smith

Purdue Ag Research & Graduate
Education Diversity Research
Assistantship

Pablo Torres Aguilar

Commission on Dietetic
Registration Second Century
Scholarship, Fall 2020

Adrienne Voelker

Purdue Graduate School Bilsland
Dissertation Fellowship, Fall 2020

Travis Woodbury

Krannert Applied Management
Principles Program, Summer 2020
Student Outreach Program
Scholarship to attend the
Professional Manufacturing
Confectioners Association
Conference, Spring 2021

Caroline Edmondson

Martin Agriculture Research Fund
Undergraduate Research Scholar

Julia Schmidt

College of Ag Transformational
Experience (CATE) undergraduate
research grant, fall 2020
Detecting Balsamic Vinegar Quality
by Chemical Analysis (faculty
mentor Dr. Brad Ruehs)



STUDENT RECOGNITIONS CONTINUED

Phi Tau Sigma Honor Society, Hoosier Chapter

Recognized with 2020 Chapter of Merit designation for their exemplary volunteer service, excellence in leadership, and dedication to the food science and technology profession.

2020-21 Executive Board

President: Connie Muniandy
 Treasurer: Merve Yildirim
 Advisor: Dr. Suzanne Nielsen
 Staff Support: Laurie Van Keppel

New Inducted Members:

Nuseybe Bulut
 Enrico Federici
 Harrison Helmick
 Gurpreet Kaur
 Cindy Mayorga
 Christina Musmann
 Maria Catalina Nino
 Ajay Daulat Singh Rawat
 Julia Schmidt (Outstanding Senior Award)
 Erin Sukala
 Uriel Urbizo-Reyes
 Ziyue Zhang

Institute of Food Technologists Student Association, National Vice President of Competitions:

Julia Schmidt

Institute of Food Technologist Student Association, Purdue Chapter 2019-2020 Outstanding Chapter for the Support Promise

In July 2020, the 2019-2020 Purdue IFTSA Executive Board, Morgan Malm (Pres.), Noah Van Horn (VP), Brie Britton (Secr.) and Erin Sukala (Treas.) received the news that the Purdue chapter had been selected for the national recognition Outstanding Chapter for the Support Promise. The Support mission of IFTSA promises to “support its members by cultivating friendship, mentorship, and leadership among those pursuing an education in the science of food.

2020-2021 Executive Board

President: Erin Sukala
 Vice President: Cindy Mayorga
 Secretary: Travis Woodbury
 Treasurer: Alyson McGovern
 Advisors: Dr. Dharmendra Mishra and Laurie Van Keppel

Institute of Food Technologist Midwest Region 2021 Virtual Conference
 Hosted by Purdue and coordinated by Zach Hoag (sophomore) and Harrison Helmick (Ph.D. student)

2020-21 College Bowl Team

Purdue’s College Bowl team placed second at the Midwest Regional College Bowl Competition through the Institute of Food Technologists Student Association (IFTSA) on April 3, 2021. Being a team of all undergraduates, they faced some stiff competition, but finished the first two rounds with wins against the University of Illinois at Urbana-Champaign and The Ohio State University. Although they ultimately lost in the last two rounds, we are incredibly proud of how hard the team worked. They did an excellent job under the pressure of the competition and this year’s virtual format and certainly shed a very positive light on Purdue Food Science. Congrats to the team of:

- JC Douthit (freshman)
- Halle Neibert (freshman)
- Ryan Stachler (freshman)
- Frank Barry (junior)
- Joe Gleason (junior; Captain)
- Maddie Harper (junior; Coach)
- Tejashree Shah (junior)
- Sangavi Subramani (junior)

Food Science Club 2020-21 Officers



Top Row: President Erin Sukala, Vice President Alyson McGovern, Secretary Maddie Harper
 Bottom Row: Treasurer Kelden Cook, Ag Council Representative Alecia Wichlinski, Event Committee Chair Liz De Acetis
 Advisors: Laurie Van Keppel and Allie Kingery

Food Science Graduate Student Association

2020-21 Executive Board

President: Cindy Mayorga
Vice President: Travis Woodbury
Secretary: Tressie Barrett
Treasurer: Nick Gallina
Social Chair: Javier Cruz
Purdue Graduate Student Government Representative: Halak Mehta
Advisor: Dr. Joe Kokini

Food Science Outstanding Undergraduate Student Recognition

Freshman: Fernanda Pedroza-Altamirano
Sophomore: Zach Hoag
Junior: Kelden Cook
Senior: Erin Sukala

Food Science Graduate Student Association was recognized with College of Agriculture unsung diversity hero award. (photo from a past international dinner)



2020-21 PRODUCT DEVELOPMENT TEAMS

Institute of Food Technologists Student Association

Mars Competition

Team Kelden Cook, Joe Gleason, Frankie Berry, Maddie Harper Zach Hoag, and Fernanda Pedroza-Altamirano created a snack trail mix that was nut free but still contained nutrients such as protein and dietary fiber.

Institute of Food Technologists Student Association

Smart Snacks for Kids Competition

Team Amanda DuMerer, Lindsey Bullerman, Genevieve Ruiz, Ryan Stachler, and Mary Voigt created "Beeties" a beetroot and strawberry cookie.

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

Next stop: 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.

UNDERGRADUATE SCHOLARSHIP RECIPIENTS

48%

of food science students awarded scholarships from the University, College of Agriculture and Department of Food Science

TOTAL

\$398,015

40%

awarded scholarships from Food Science Department Scholarships (100% who applied)

TOTAL

\$115,000

Thanks to our generous donors!

***Alumni & Friends Scholarship**

(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.)

Fred Babel Scholarship

Frank Achulli
Jessica Armstrong
Audra Brewer
Isabella Bryan
Lindsey Bullerman
Molly Carroll
Kelden Cook
Elizabeth De Acetis
Amanda DuMerer
Caroline Edmondson
Joe Gleason
Kendall Green
Madeline Harper
Zach Hoag
Yufan Hu
Sarah Koo
Marissa Maddox
Isabel Mahin
Madison Mehringer
Heather Milliron
Christina Mussmann
Kelsey Perin
Natalia Rodriguez
Julia Schmidt
Tejashree Shah
Renee Stieby
Sangavi Subramani
Erin Sukala
Owen Vaughn
Rowan Wallar
Alecia Wichlinski
Ziyue Zhang
Neil Zhao
Haohui Zhu
Irene Zou

Arnold "Bud" & Cathy Denton Scholarship

Christina Mussmann
Amanda DuMerer
Kelden Cook
Madeline Harper
Rowan Wallar
Madeline Travelino
Isabella Bryan

Gary & Sara Hellmich Scholarship

Francesca Benedict
Jessica "JC" Douthit

Imran Kazem Scholarship

Genesis Riley

Leesa Martin & James Kincaid Scholarship

Audra Brewer
Claire Steinkuhl

Peter Mauger & Sarah Naas Mauger Scholarship

Audrey Dirksen
Cooper Sims
Clarissa Vasquez

Sarah Naas Mauger Veil Scholarship

Madison Kenyon
Ryan Stachler
Ireland Stevens
Madeleine Thompson
Irene Zou

Angela "Angie" Bowes Perez Scholarship

Elizabeth De Acetis

Red Gold Scholarship

Leah Keesling
Nathan Roscoe
Alecia Wichlinski

Ronald Rice Scholarship

Joe Gleason
Molly Carroll
Caroline Edmondson

Kathryn "Katie" Rippel Scholarship

Ashley Gordish

Norman & Carole Thomas Scholarship

Erin Sukala

Red Gold Internship/Scholarship

Emily Lansing

Purdue's Top Merit Scholarship Recipients

(23% of food science students totaling \$174,491)

Purdue Presidential

Margaret (Maggie) Adams
Jessica Armstrong
Isabella Bryan
Lindsey Bullerman
Kelden Cook
Elizabeth De Acetis
Lauren Decker
Clare Dirksen
JC Douthit
Caroline Edmondson
Kendall Green
Joseph Gleason
Madeline Harper
Zachary Hoag
Leah Keesling
Madison Kenyon
Matthew Kittaka
Rio Lemkuil
Josh Martin
Madison Mehringer
Christina Mussmann
Alexandra Neikirk
Genevieve Ruiz
Julia Schmidt
Claire Steinkuhl
Clarissa Vasquez
Rowan Wallar
Irene Zou

Purdue Trustee:

Erin Sukala

Pfendler Memorial Agriculture Scholarship

Zachary Hoag

GRADUATES MOVING ON

DEGREES AWARDED

August 2020

Fernando Canteraro (M.S. mentor Dharmendra Mishra)
 Sarah Corwin (Ph.D. mentor Bruce Hamaker)
 Hazal Turasan (Ph.D. mentor Joe Kokini)
 Yizhe "Bruce" Zhang (Ph.D. mentor Jen-Yi Huang)

December 2020

Han Chen (M.S. mentor Betty Feng)
 Felicia Hall (Ph.D. mentor Andrea Liceaga)
 Enosh Kazem (Ph.D. mentor Bruce Hamaker)
 Geraldine Tembo (M.S. mentor Fernanda San Martin)
 Adrienne Voelker (Ph.D. mentor Lisa Mauer)

May 2021

Emmanuel Ayua (Ph.D. mentor Bruce Hamaker)
 Xingjian Bai (Ph.D. mentor Arun Bhunia)
 Jingfan Chen (Ph.D. mentor Yuan Yao)
 Enrico Federici (Ph.D. mentor Owen Jones)
 Anna Hayes (Ph.D. mentor Bruce Hamaker)
 Carine Nkemngong (Ph.D. mentor Haley Oliver)
 Arianna Romero (M.S. mentor Steve Lindemann)
 Luping Xu (M.S. mentor Arun Bhunia)

B.S. Graduates

Amanda DuMerer
 Ashley Gordish
 Kendall Green
 Chen Hu
 Wenqi Huang
 Eryka Hughes
 Thomas Jachec
 Anh "Louie" Le
 Christina Mussmann
 Julia Schmidt
 Beatriz Serratos
 Kibeom "Kyle" Song
 Erin Sukala
 Vincent Tarpo
 Maxwell Voorn
 Maureen Wiryadi
 Xinyue Xie
 Neil Zhao
 Xinruo "Tina" Zhao
 Ziyue Zhang

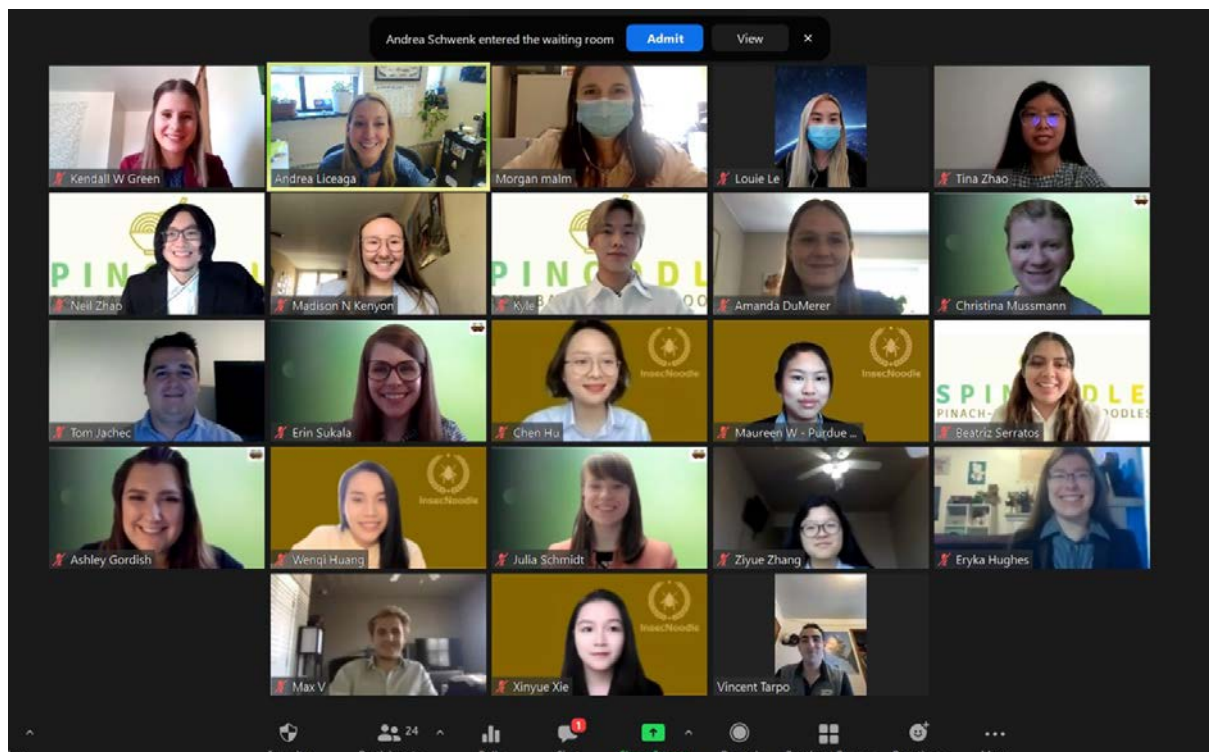
B.S. Class of '21 Stats
 (based on 75% response rate within 2 months of graduation; employment based on U.S. citizenship)

- 25%** continuing education
- 40%** accepted a job
- 50%** did research
- 25%** had an international experience
- 75%** had a professional experience
- 53%** had one internship
- 33%** had two internships
- 13%** had three internships

Average salary for B.S.
\$54,000

B.S. DEGREE CLASS OF 2021

Photo taken during FS 443 Senior Product Design Course taught by Dr. Andrea Liceaga with teaching assistant Ph.D. student Morgan Malm as student groups presented final projects via Zoom.



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<https://ag.purdue.edu/foodsci>

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 in 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!

Industry Goodie Bags

Thank you to our industry supporters Cargill, Heartland Food Products Group, Hershey's, Impossible Foods, Kellogg's, and Pepsico who provided product and swag for our prospective and admitted student goodie bags.



2020-21 Industrial Associates Companies

AFB International
Cargill
Conagra Brands
Danone North America
General Mills
Heartland Food Products Group
Hershey's
Kalsec
Morgan Foods
Nestle R&D Center
PepsiCo
Red Gold
Skidmore Sales and Distributing Company
Verdure Sciences

2020 Food Science Student Professional Development Days

Even though we could not hold this event in person this year due to COVID-19, the 7th annual Food Science Student Professional Development Days still happened because of these amazing individuals. The participants gave their time to freshman, sophomore, and/or senior seminar class, reviewed students' resumes, and/or were interviewed by seniors looking for guidance as those students prepare for their next chapter in life.

"he gave me valuable insights into how I should set myself up for success going into my early career and first couple workplace environments. I think it definitely opened my eyes to the diverse ways you can apply your degree from management to principal scientist."

– senior Max Voorn

Participants:

Punya Mohapatra, AFB International	Jessie Pawlowski, Griffith Foods
Michelle Sandau, AFB International	Mike Hmurovich, Griffith Foods
Preetha Banerjee, AFB International	Beth Pletsch, Heartland Food Products Group
Natalie Donovan, Alto Pharmacy	Sasha Barnett, Hill's Pet Nutrition
Annie Leslie, Ameriqua	Holly Clements, Hormel Foods
Katie Hartford, Artemis International	Erin Raver, Hormel Foods
Michelle Egger, BIOMILQ	Dan Moore, Hormel Foods
Michelle Kozora, Cargill	Sarah Ferguson, Kellogg's
Tristan Lipkie, Cargill	Stacey Boosey, Mars Foods
Carlos Carter, Cargill	Meghan Boucher, McCormick & Company
Allyson Martin, Clasen Quality Chocolate	Justin Teipen, Morgan Foods
Melissa Castrale, Conagra Brands	Audrey Mason, Nestle
Corey Seffernick, Conagra Brands	Amanda Bigando, Newly Weds Foods
Matthew Schaefer, Cracker Barrel Old Country Store Corp.	Elena Bailoni, O-TA-KA Milk Products
Aaron Pleitner, Danone North America	Alyssa Heniser, Pepsico
Jennie Norka, Eight O'clock Coffee	Aimee Buechler, Pepsico
Hannah Freiberg, Gamay Foods	Laura Brenberg, Pepsico
Jake Gandolph, General Mills	Sydney Lawless, Pepsico
Mark Ousley, General Mills	Shreya Sahsrabudhe, Pepsico
Morgan Redemann, General Mills	Rachel Priddy, Rose & Lois Coffee Shop
Cheryl Udzielak, Givaudan	Cora Gilmore, White Castle Distributing, LLC
Courtney Gwinn, Griffith Foods	Alice Anderson, The Wolf Group