

FST Newsletter

DEPARTMENT NEWS

Updates from the Department of Food Science and Technology
and The Food Processing Center

December 2025



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Food Science and Technology

Food Innovation Center

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1 FROM THE DESK OF DR. MARTINI



Dear Colleagues,

Hello!

I can't believe that the Holidays are approaching so fast! We are right in the middle of Holiday Season, and I am ready for the break! I hope you are too and that you have great plans to relax and enjoy the time off.

This month has been full of activities and accomplishments. We continued to work hard on recruiting activities lead by Dr. Andreia Bianchini. One of the most significant was the 2025 Scholarship Challenge. On December 5th, we welcomed 13 high school students that spent the entire day with us. It was fun to see how these motivated young students worked to develop a fantastic bean dip that had to be reformulated to create a healthier version of the dip.

Students worked hard during the day and finished the activity by presenting their product to judges that evaluated their product. We were so impressed with their performance that we awarded \$5,000 Scholarships to all of them! Needless to say, that the success of this event could not have been possible without the leadership of Dr. Andreia Bianchini and her student Mariana Perez Quiros. I also want to thank faculty that helped with the design of the experiments (Dr. Devin Rose, Dr. Kaustav Majumder, and Dr. Edward Deehan) and that lead the experiments in the lab: Dr. Devin Rose and Dr. Junsi Yang. Both of these faculty were on the ground delivering the lecture and helping the students with the activity. Of course, we also needed help from students: Axl Rassmussen and Emily Jackson were outstanding! As you can imagine, there were a lot of logistics to take care of, Susie Fauble, Julie Reiling, and Angie Ratekin helped with those. Last, but not least, I want to thank the wonderful judges: Edel Summers, April Johnson, Julie Reiling, and Heather Hallen-Adams. This was true teamwork that made the event a huge success. THANKS!

For those that are interested in what is next in food science, I recently came across the next flavor trends released by IFT. The article is too long to summarize here, but it describes that consumers' choices are driven by joy, comfort, wellness, and global curiosity. Consumers have no limits when it comes to new flavors, like mixing sweet with spicy (swicy!) or savory-sweet twists. Consumers are also looking for foods with no boundaries and like to explore flavors from around the world. They also want flavors that tie up with feelings and emotions, with some sort of nostalgia while embracing novelty. I can't wait to see all those new products that will address these consumers' needs!

This has been a month with a lot of accomplishments from our faculty and students. Dr. Ozan Ciftci was the recipient of the 2026 AOCS Tomothy L. Mounts Award, Prabhasis Bose was the recipient of the 2026 AOCS Health and Nutrition Division Student Excellence Award, and Purlen Sezer Okur received the 2026 AOCS Honored Student Award and the

Manuchehr Eijadi Award. They will all travel to New Orleans next year to be recognized. Please help me congratulate them for these outstanding accomplishments!

Last week we also participated in the CASNR Scholarships Ceremony. We are so proud of all the students that received scholarships this year. These include:

- Andrew Stiven Ortiz Balsero (Life Sciences Fellowship)
- Dinithi De Silva (Widaman Distinguished Graduate Fellowship Award)
- Jaber Gorbani (Milton E. Mohr Scholarship)
- Jami Bull (Cooper Sharpless Scholarship)
- Nitish Lekhak (Cooper Sharpless Scholarship)
- Sedoten Ogun (Widaman Distinguished Graduate Fellowship Award)
- Vannith Hay (Cooper Sharpless)
- Yhuliana Nino (Milton E. Mohr Scholarship)
- Yuchen Yan (Widaman Distinguished Graduate Fellowship Award)
- Yue Wang (John and Louise Skala Fellowship)
- Yunruo Zhang (Cooper Sharpless Scholarship)

Congratulations to all the students and the professors that advise them! Well done!

As usual, I would like to end this message by congratulating faculty and students that published their research this last month.

· Asif, M; Wegulo, SN; Frels, K; Hallen-Adams, H; Schmale, DG. 2025. Effects of fungicide application timing on foliar fungal diseases, Fusarium head blight and economic returns in two winter wheat cultivars. *Canadian Journal of Plant Pathology*. <https://doi.org/10.1080/07060661.2025.2576745>

· Yan, Y; Patel, RSKR; Shanmugam, NRS ; Akresi, J. and Yin, Y. 2025. dbCAN-HGM: CAZyme gene clusters in gut microbiomes of diverse human populations. *Nucleic Acids Research*. <https://doi.org/10.1093/nar/gkaf1185>

· Upadhyaya, B; Liew, CS; Riethovan, JJM; Mine, Y; Moreau, R; Majumder, K. 2025. Dietary Dipeptide g-Glutamyl Valine (g-EV) Activates AMPK and Improves Glucose Homeostasis in db/db Mice. *The Journal of Nutritional Biochemistry*. <https://doi.org/10.1016/j.jnutbio.2025.110204>

· Suhr Van Haute, MJ; Yang, Q; Korth, N; Happ, MM; Kok, CR; Miao, C; Clarke, JL; Karnik, K; Eskridge, KM; Urrea, CA; Hyten, DL; Schnable, JC; Rose, DJ; Benson, AK. 2025. Genetic variation and historical breeding patterns in common bean (*Phaseolus vulgaris* L.) affect fermentation patterns by the human gut microbiome. *Communications Biology*. <https://doi.org/10.1038/s42003-025-09089-2>

· Chen, S; Baumert, JL; Downs, ML. 2025. Quantification, Risk Assessment, and Mitigation of Cashew Allergen Cross-Contact in Shared Roasting Oil Systems. *Journal of Food Protection*. <https://doi.org/10.1016/j.jfp.2025.100678>

Congratulations to all on getting your work published!

I feel honored to work with faculty, students, and staff that are hard-working and are always looking to help others! I love seeing everybody's accomplishments and I am eager to see how the department keeps growing. I am looking forward to graduation events next week and wish our most recent graduates all the best. I can't wait to see how far they will go and to witness the things they will accomplish in life.

I wish you all a Happy Holiday Season!

Silvana Martini, PhD

Professor, Department Head

Silvana Martini



2 SPOTLIGHTS & HIGHLIGHTS

Celebrating Excellence in Research

Out of the world's population of scientists and social scientists, **Highly Cited Researchers represent just 1 in 1,000**. These individuals demonstrate significant and broad influence in their fields, authoring multiple papers that rank in the **top 1% by citations** over the past eleven years.

Selection for this distinction goes beyond citation counts—it includes **quantitative metrics, qualitative analysis, and expert judgment**.

We are proud to announce that **Emeritus Professor Bob Hutkins** has earned this prestigious recognition as a Highly Cited Researcher. His contributions continue to shape the future of science and innovation.

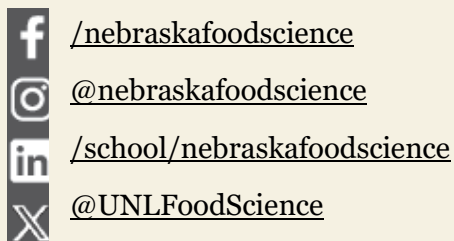
🎉 Congratulations, Professor Hutkins!

#ResearchImpact #HighlyCited #ScienceLeadership
#UNLResearch #Innovation



The University is closed December 24 thru January 2 for the Holiday Break.

Follow us on social media!



Dec 1–7

- **Dec 1:** 🍏 Eat a Red Apple Day, 🍫 Peppermint Bark Day
- **Dec 2:** 🥞 Fritters Day
- **Dec 3:** 🥧 Apple Pie Day, 🥗 Green Bean Casserole Day
- **Dec 4:** 🍪 Cookie Day
- **Dec 5:** 🍲 Comfort Food Day, 🍰 Sacher Torte Day
- **Dec 6:** 🌪️ Gazpacho Day
- **Dec 7:** 🍭 Cotton Candy Day

3. SPOTLIGHTS & HIGHLIGHTS



POP-UP
FREEZE DRYING FOR FUN AND PROFIT
A TWO-DAY HANDS-ON WORKSHOP

This workshop explores the science and business of freeze drying. Participants will learn the principles of freeze drying, sublimation, desorption, equipment operation and maintenance, and food safety considerations while experimenting with a variety of foods. The workshop will also cover cottage food laws, labeling requirements, and best practices for small-scale production from university and industry experts. Participants will gain entrepreneurial skills in product development, branding, and marketing. By the end of the workshop, participants will be equipped to practice freeze drying for personal use or to launch a small food venture.

Food Innovation Center
1901 N 21st Street
Lincoln, NE 68588

April 11, 2026, 9 am - 5 pm
April 12, 2026, 9 am - 2 pm
Plus 30-day access to all workshop materials after the event.

The workshop is open to anyone interested in freeze drying and food preservation. Scan the QR code for more information and how to register.

Questions? Contact Julie Reiling at jreiling2@unl.edu or 402-472-2529.

N THE FOOD PROCESSING CENTER
Department of Food Science and Technology

☀️ Join Our Freeze-Drying Workshop! ☀️

Ever wondered how to preserve food while keeping its flavor and nutrients intact? Freeze-drying is the answer!

📅 **Date:** April 11 & 12

📍 **Location:** FIC

🕒 **Time:** 9-5 and 9-2

- ✅ Learn the principles of freeze-drying
- ✅ Covers Cottage Food Laws
- ✅ Gain entrepreneurial skills in product development

Perfect for homesteaders, campers, and anyone interested in food preservation!

👉 **Register now** to secure your spot!

Quick Recipe Corner

1 Egnog French Toast

Ingredients:

- 4 slices of bread (brioche or challah works great)
- 1 cup eggnog
- 2 eggs
- ½ tsp ground cinnamon
- Butter for cooking
- Maple syrup (optional)

Instructions:

1. In a shallow bowl, whisk together **eggnog, eggs, and cinnamon**.
2. Dip each slice of bread into the mixture, letting it soak for a few seconds on each side.
3. Heat a skillet over medium heat and melt a little butter.
4. Cook the bread slices until golden brown on both sides (about 2–3 minutes per side).
5. Serve warm with maple syrup or powdered sugar.

Dec 8–14

- **Dec 8:** 🍪 Brownie Day
- **Dec 9:** 🥧 Pastry Day
- **Dec 10:** 🍺 Lager Day
- **Dec 11:** 🥯 Bagel Day, 🍜 Noodle Ring Day
- **Dec 12:** 🍫 Cocoa Day, 🏠 Gingerbread House Day, 🍲 Pho Day
- **Dec 13:** 🍰 Cream Cheese Frosting Day
- **Dec 14:** 🍪 Biscuits & Gravy Day, 🐟 Bouillabaisse Day

4. Spotlights & Highlights

Faculty Member Speaks Out on Mushroom Poisoning Risks

California health officials recently issued a warning after a surge in **mushroom poisoning cases**, including severe liver damage and one death linked to the **death cap mushroom (Amanita phalloides)**. Amid growing concern, **Heather Hallen-Adams** was quoted in an NPR news article emphasizing the dangers of foraging wild mushrooms.

Cooking the mushroom does not eliminate its toxicity, reiterated Heather Hallen-Adams, associate professor of Practice in Food Science at the University of Nebraska, Lincoln, and the toxicology chair for the North American Mycological Association.

Hallen-Adams received a report of the poisoning last week from a hospital in Salinas, where staff were seeking identification of the mushrooms after treating patients with gastrointestinal symptoms who said they had eaten them.

WHAT ARE THE SYMPTOMS OF DEADLY MUSHROOM POISONING?

If you've eaten a toxic mushroom like the death cap, you may not feel symptoms immediately. It might take six, eight or even 24 hours to start feeling sick, with flu-like symptoms that include:

- Vomiting
- Aches
- Stomach pain
- Watery diarrhea
- Nausea
- Dehydration

In these recently reported poisonings, Hallen-Adams said symptoms didn't show up until around 24 hours later.

- Link to the article in its entirety: <https://www.kqed.org/news/12066441/california-mushroom-poisoning-symptoms-death-cap-identification-toxic-foraging>

Dec 22–28

- **Dec 22:** 🥮 Date Nut Bread Day
- **Dec 23:** 🍪 Pfeffernuesse Day
- **Dec 24:** 🥚 Eggnog Day
- **Dec 25:** 🍂 Pumpkin Pie Day
- **Dec 26:** 🍭 Candy Cane Day
- **Dec 27:** 🍰 Fruitcake Day



5. The Rundown

Welcome to “The Rundown”, your monthly snapshot of all interesting things, unexpected, and just plain useful.

This page is your go-to for quick updates, fun facts, helpful tips, and anything else that doesn't quite fit anywhere else—but still deserves a spot in the spotlight.

Dec 22–28

- **Dec 22:** 🍪 Date Nut Bread Day
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Lincoln Police Department Jurisdiction at NIC

The Lincoln Police Department (LPD) is responsible for law enforcement at Nebraska Innovation Campus. If an incident occurs at NIC, please contact **LPD directly**, not UNL Police.

- For emergencies, call 911
- For non-emergencies, call (402) 441-6000

LPD is committed to providing quality police services that promote a safe and secure community. We encourage all NIC Partners to save these numbers for quick access in case of an emergency.

Cold Weather Reminders:

1. Personal Safety

- **Dress in layers:** Start with moisture-wicking base layers, add insulating layers (like fleece or wool), and finish with a waterproof outer layer.
- **Protect extremities:** Wear insulated gloves, thick socks, and a hat that covers your ears. Consider thermal liners for boots.
- **Stay dry:** Wet clothing loses heat quickly, so keep extra socks and gloves handy.
- **Limit exposure:** Frostbite can occur in minutes in extreme cold. Take breaks indoors if you're outside for long periods.

2. Home Preparation

- **Insulate pipes:** Wrap exposed pipes to prevent freezing and bursting.
- **Check heating systems:** Ensure your furnace or heaters are working properly before the cold hits.
- **batteries, and non-perishable food** in case of power outages.
- **Seal drafts:** Use weather stripping or draft stoppers around doors and windows to keep heat in.

3. Vehicle Safety

- **Winterize your car:** Check antifreeze, battery, tires (preferably winter tires), and windshield wipers.
- **Emergency kit:** Include blankets, water, snacks, a flashlight, and a shovel in your car.
- **Drive cautiously:** Slow down, increase following distance, and avoid sudden braking on icy roads.

4. Outdoor Tips

- **Shovel safely:** Lift with your legs not your back, and take breaks to avoid overexertion.
- **Use salt or sand:** Prevent slips by treating walkways and driveways.
- **Watch for ice:** Black ice is hard to see—walk and drive carefully.

6. Spotlight on Grads Students



SAVE THE DATE: SALUTE TO GRADUATES ON DEC. 19

The Department of Food Science & Technology invites you to celebrate the achievements and successes of our December 2025 graduating students! The celebration will be at 11 a.m. on Friday, December 19 in FIC 111.

FST Graduate Students and Supervisors Honored at Distinguished Fellowship and Awards Luncheon

The Faculty of Science and Technology proudly celebrated the outstanding achievements of its graduate students and their supervisors at the recent **Distinguished Fellowship and Awards Luncheon**. This event recognized individuals who have demonstrated exceptional academic performance, research excellence, and leadership within their fields.

Among those honored were:

- **Andrew Ortiz Balsero** – *Life Sciences Fellowship*
- **Dinithi De Silva** - *Widaman Distinguished Graduate Fellowship Award*
- **Jaber Ghorbani** - *Milton E. Mohr Teaching Fellowship*
- **Jami Bull** – *Mary & Charels C. Cooper/Emma I. Sharpless Fellowship*
- **Nitish Lekhak** – *Mary & Charles C. Cooper/Emma I. Sharpless Fellowship*
- **Sedoten Ogun** – *Widaman Distinguished Graduate Fellowship Award*
- **Vannith Hay** – *Mary & Charles C. Cooper/Emma I. Sharpless Fellowship*
- **Yhuliana Nino** – *Milton E. Mohr Teaching Fellowship*
- **Yuchen Y** – *Widaman Distinguished Graduate Fellowship Award*
- **Yue Wang** – *John and Louise Skala Fellowship*
- **Yunruo Zhang** – *Mary & Charles C. Cooper/Emma I. Sharpless Fellowship*

Dec 29–31

- **Dec 30:** 🍷 Bacon Day
- **Dec 31:** 🍾 Champagne Day

These students exemplify the dedication and innovation that define graduate research at FST. Their supervisors were also recognized for their invaluable mentorship and guidance, fostering an environment where creativity and academic rigor thrive. Congratulations to all awardees for their hard work and commitment to excellence!

7. Upcoming Events

Dec. 8 – Dr. Song (Flavor Chemist Candidate) Research Seminar, 11am; FIC 277

Dec. 9 – Dr. Song Teaching Seminar, 9am; FIC 220

Dec. 10 – Study at Sheldon 1-5 pm

Dec. 11 – Dr. Paravisini (Flavor Chemist Candidate) Research Seminar 4pm; FIC 277

Dec. 12 – Dr. Paravisini Teaching Seminar, 11am; FIC 220

Dec. 12 – Holiday Get-Together 4-6pm

Dec. 16-17 – Better Process School for Acidified Foods Workshop

Dec. 19 – Salute to Grads, 11am; FIC 111

HAPPY HOLIDAYS

