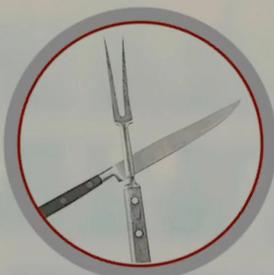


BEAVER CLASSIC BRAND EXPANDS



CHEESES



MEATS



HONEY

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Message from FST Department Head

Dr. Lisbeth Goddik

Dear Alumni, Stakeholders, and Friends

Welcome to the June edition of our FST newsletter.

This is a hopeful time in Wiegand Hall as we prepare to fully reopen our programs.

The FST research program continued throughout the pandemic with graduate students and faculty working in shifts to keep lab density low.

Whenever possible, we have worked from home, but beer has still been brewed, wine has been fermenting, and the Beaver Classic program has continued to produce cheeses.

The sensory program pivoted to home consumer testing and clearly demonstrated that academia can be nimble and resourceful. I marvel over the grit and courage of our faculty, staff, and graduate students who have kept going during challenging times.

Most of all, I'm impressed by our undergraduate students. They stayed with us during endless zoom lectures and bravely embraced remote labs such as home cheese making.

When the pandemic started, I wondered if we would lose our students. But they buckled down and got the work done, which means we'll graduate another wonderful group of seniors in June.

I can't wait to welcome our current and future undergraduates back to campus for in-person classes this fall.

FST is a supportive and friendly community. Together, we will establish and follow safe procedures that will allow us to once again fill Wiegand Hall.



Please read this newsletter and reach out to us.

A good place to start is through an e-mail to me: lisbeth.goddik@oregonstate.edu.

We will listen!

***Dr. Lisbeth Goddik, Department Head
Paul & Sandy Arbuthnot Professor
Jacobs-Root Professor***

Please continue on to page 3 to read the results of an important survey of FST Alumni conducted this winter, and my responses to the insightful input we received.





FST Alumni Survey

This winter, 141 of you responded to an alumni survey about our program and the increased focus on sustainable food manufacturing.

Sixty two percent (62%) of replies came from professionals within the food/beverage industry including academia and government.

Not surprisingly, most work in QA, R&D, and operations. Our alumni anticipated some major changes ahead within their companies, especially in the areas of fast and agile innovation and product development, growing automation, focus on environmental impact, global competition, a diversification in alcoholic beverage categories, and overall growth.

Alumni also stated that FST is characterized by a strong curriculum, highly reputable, inspires learning, and solution oriented.

Our 141 alumni expressed overwhelmingly positive sentiments towards FST through responses to the following questions:

Q: Are you proud to have graduated from the OSU Department of Food Science & Technology?

Answer: 4.56 (out of a max of 5)

Q: How positive do you feel about the OSU Department of Food Science & Technology?

Answer: 4.29 (out of a max of 5)

I am proud of all of you who now represent FST throughout the world.

However, responses to one question do warrant a follow up. Regarding our new emphasis on sustainable food manufacturing, we asked the following question:

Q: Imagine if you were now enrolled in this newly revised major of Food Science and Sustainable Technologies, how do you think this degree would equip you for a successful career in the food/beverage industry and for working towards changing our global food systems for the better?

While most considered this a positive development, we also got some cautious and very interesting responses such as:

“Please do not become social justice warriors”

“I am concerned which courses are being removed to make room for these new courses”

“I think it’s more important to know how to make food safety before you learn how to make it sustainable”

“Making sustainability an end objective rather than a means to enhance other legitimate ends feels like a major mistake.”

These are thoughtful and important points that are important to address. We are not removing any food science courses. To free up credits, we now only require FST students to take two biology pre-requisite courses. This is possible because the biology sequence changed and the knowledge our students need is now taught in two courses rather than three.

We also changed the physics pre-requisites and now only require 5 credits of physics rather than 10. This brings the physics requirement for the Food and Fermentation Science options into alignment with Enology and Viticulture, which has required just 5 credits of physics from its inception in 2005.

We are not removing any food science classes. The food science curriculum remains unaltered and still fulfills the 53 learning outcomes required to remain an IFT approved program. We have added a food manufacturing course that focuses on food waste, by-product utilization, water usage, biodegradable packaging, assessment tools, etc.

In addition, we have introduced an elective course on Food and Climate Change that explores impact of climate change on the supply chain. Other aspects of sustainability, include life cycle analysis, food security, and local and global agricultural food systems, will be taught through electives. The sustainability coursework has been selected so that it simultaneously fulfills Baccalaureate Core (general studies) requirements for the bachelor’s degree, giving focus to this component of study. Therefore, we are confident that we will strengthen the instruction in sustainability without weakening the food science curriculum.

It is important to note that this change to our curriculum aligns with our incoming students. In a recent survey of incoming FST students, around 75% said their reason for choosing food science was to help develop sustainable foods and mitigate climate change.

GenZ students are passionate in their pursuit to make the world a better place. We will offer a curriculum that teaches the science behind sustainable food manufacturing and provides them with the necessary tools to advance their dream careers.

Please reach out to me if you have additional questions or concerns about our curriculum –

lisbeth.goddik@oregonstate.edu

OSU to Build New \$20 Million Dairy Processing Facility

Sierra Dawn McClain | Capital Press | June 8, 2021

Oregon State University announced Tuesday it will build a new \$20 million dairy processing facility using private investments, state bonds and university funding.

The new, 3,000-square-foot dairy plant — three times the size of OSU’s existing facilities — will be used as a research laboratory and hands-on classroom for students and faculty, an educational space for the community, an incubator for dairy startups, a space where creameries statewide can test new products, and a retail shop selling products such as ice cream made on site.

“I’m thrilled. It’s truly a dream come true,” said Lisbeth Goddik, head of OSU’s Department of Food Science and Technology. “We’ve wanted to provide the very best educational opportunities for our students, and this will allow us to do that. I think it’ll also have a really broad impact on our industry, because it’ll make it faster and cheaper to develop new products.” [READ FULL STORY](#)



Oregon State University (Dept. FST) students making cheese. The upcoming \$20 million facility will provide opportunities for students, Oregon’s dairy industry, and the broader community.

Beaver Classic Brand Expands



SAVOR QUALITY SAVOR EDUCATION

We introduce the next chapter in the Beaver Classic story with a [NEW ONLINE STORE](#) featuring cheese, meat and honey developed by students as part of their experiential learning.

The future of Beaver Classic is exciting and will include other products such as produce, nursery plants, and beer. We will also have the opportunity to integrate agribusiness students to run the operations and marketing.

It is a truly powerful student-led program with immense opportunity and potential!

[LEARN MORE](#)



Department Highlights

While the Covid pandemic kept us apart physically, it did not slow down the accomplishments of faculty, students, and staff at OSU Food Science and Technology.

Here are but a few notable mentions for events and activities that took place since our last newsletter.

FST offers fun solution for those looking for a pandemic-proof Valentine's Day



Food Science and Technology experts from Oregon State University led PACE Masterclasses February 12th, 13th and 14th to show participants how to craft the romantic feast of their dreams.

The [webinar series](#) focused on the perfect food and drink to make an at-home Valentine's Day a success.



A quick and fun video on beer by FST Professor Tom Shellhammer, aka "The Hop Guy"

February 23, 2021 Food Science and Technology Virtual Career Fair



The Food Science and Technology programs at Oregon State University produces highly skilled students in Food Science, Fermentation Science, and Enology.

Employers had the opportunity to recruit these students for internships and full-time positions at the 2021 Food Science and Technology Virtual Career Fair.

77 students and 29 employers participated in the virtual career fair.

Employers ranged from biopharma to food and beverage companies, with locations from Alaska to Boston.

"The career fair was a great experience, and it was awesome meeting with students. I really hope that they consider a career with ODA."

Parker Cooper

Department Highlights



FST raises record amount in first online auction as part of OSU Food Drive

Despite obstacles presented by COVID-19, this year's Oregon State University Food Drive surpassed last year's successful campaign, raising the equivalent of 467,378 meals.

As part of the OSU Food Drive, FST held its first ever online silent auction featuring products, experiences, and handcrafted items donated by the FST Community.



Thanks to everyone who participated, the department's first online auction was a big success! FST raised \$961, over 137% of the goal of \$700.

Combined with a private direct donation from a member of FST, the department total for the 2021 OSU Food Drive was over \$1200!

"Our culture of collaboration at OSU is unmatched within the Governor's State Employees Food Drive, and together our contributions have a significant positive impact in our community," said Shelly Signs, OSU Food Drive Coordinator.

[READ MORE ABOUT OSU FOOD DRIVE RESULTS](#)



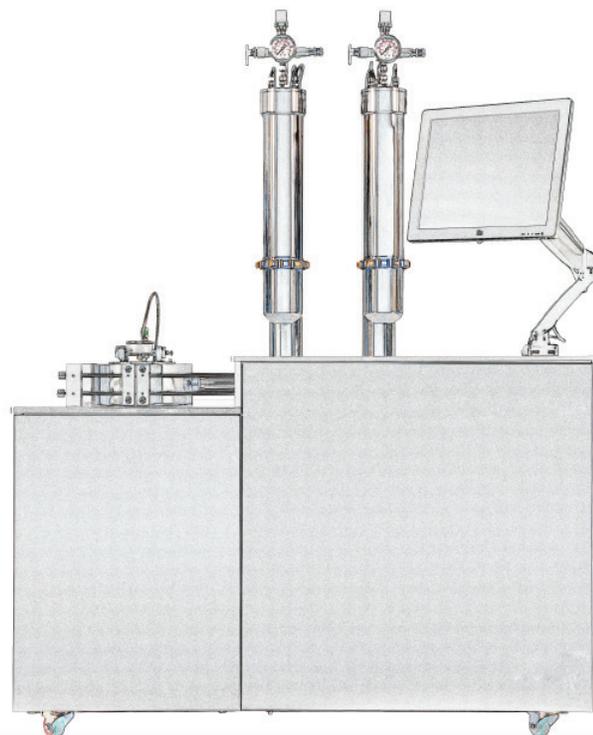
FST Prepares for Vanguard Hemp Equipment Installation

FST is preparing for the installation of a Vanguard essential oil extractor and a compressor, which will be used for hemp processing. FST received the Vanguard extractor as a donation earlier this year (value \$149,000).

The project has been on hold until funds to upgrade the pilot plant infrastructure (mostly electric upgrades.) were secured. FST received \$16,000 needed for the equipment installation in a second BUC grant submitted by the Hemp Center.

Thanks to Zak Wiegand and Jeff Clawson for leading the work to prepare the pilot plant for the installation of the new hemp processing equipment, and to Dr. Paul Hughes for identifying additional equipment for the hemp processing line.

A decade ago, the Wiegand pilot plant looked a bit like a museum. The new brewery, the hemp equipment, and the two new unit operations that Dr. Yanyun Zhao received all contribute to a more modern and impressive pilot plant.



Department Highlights

Announcing FST's New Food Product Development Competition!

The Food Science and Technology Advisory Board has advocated that our undergraduates would benefit by obtaining more business skills, either from formal classes or through experiential learning opportunities such as internships and product development competitions.

With the Advisory Board's support and initiative, FST is announcing an internal product development competition that will have a strong focus on gaining business skills in addition to developing an innovative food product.

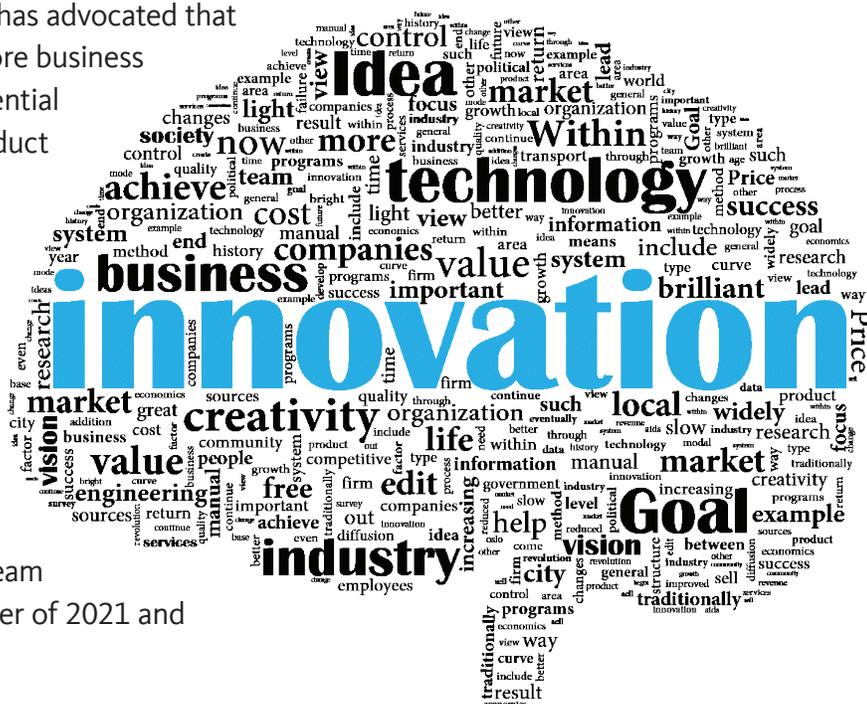
Dr. Neil Shay, who has excellent experience from both academia and private industry, will lead this project. We envision an annual department wide team competition, the first iteration starting in September of 2021 and ending in May of 2022.

Members of the Advisory Board have volunteered to be involved in both setting up the format of the competition and also to serve as potential project team mentors or advisors, and perhaps be involved as judges in May.

Several Board members have also generously made financial contributions to the program. Students entering this competition will become eligible for scholarships to

help financially challenged students take time off from work to participate on a team. Additional scholarships will be awarded as prizes in May.

Dr. Shay will be working with an organizing committee over the summer to establish the guidelines for this exciting new opportunity for FST students so stay tuned for more details!



Department Highlights

FST Farm 2 Fork Webinar Series



Better Than Ever in 2021!

If you have not already discovered this wonderful webinar series about people, technologies and collaborations that are enabling positive change, we invite you to join us!

You can find the current webinar schedule and a link to recordings of past webinars on the [F2F WEBPAGE](#).

JULY 16, 2021



[Insights into Scaling Artisan Cheese - Why gold medal creameries go belly up while Elsa and Anna string cheese sells in 20,000 stores nationwide](#)

*Speaker: Shawn Fels
Owner, Portland Creamery
and Cheesorizo*

*Senior VP of Innovation and Quality,
Medolac*

AUGUST 20, 2021



[Emerging Food Companies - Co-manufacturing as a Barrier to Start and Grow a Business](#)

*Speaker: Hannah Kullberg
Holistic Advisor @ Connector
to the PNW Food Ecosystem*

SEPTEMBER 17, 2021



[Supporting a Resilient Regional Food Economy with a New Model for Shared Warehousing and Sustainable Last-Mile Logistics](#)

*Speaker: Franklin Jones
Founder and CEO
B-Line Urban Delivery*

FST Faculty in the News



Tom Shellhammer

Hops and Smoke: How Have Wildfires Impacted This Year's Crop?

Linda Dailey Paulson | Spirited
December 2, 2020

Whether any hops harvested during the height of the wildfires are being used is subject to dealer and merchant evaluation on a case-by-case basis.

"I don't think we know enough [about the effect of smoke and ash on hops]," adds Tom Shellhammer, brewing chemist at Oregon State University. "I think we can look to the wine industry and use that as a guidepost, but the grape analogy only goes so far."

[READ FULL STORY](#)



Beautiful Oregon Hops



Elizabeth Tomasino

The Complex Science and Evolving Toll of Smoke Taint

Sean P. Sullivan | Wine Enthusiast
February 17, 2021

"There's naturally a lot of genetic diversity in people and what they can smell and taste," says Oregon State

University's Elizabeth Tomasino, who studies sensory aspects of smoke exposure to grapes.

"About 20% of the population, they don't taste [smoke taint] at all. But that leaves 80% that do."... [READ FULL STORY](#)



Smoke's visual presence and even the Air Quality Index are not necessarily reliable indicators of its impact on wine grapes/ Getty



Joy Waite-Cusic

Fraught Scene Over Discarded Food at Fred Meyer Highlights Hunger, Challenges of Distribution in Storm

Jamie Goldberg | The Oregonian/OregonLive
February 17, 2021

Joy Waite-Cusic, an Oregon State University professor of food safety systems, said Fred Meyer could have opened itself up to litigation if people consumed food the store threw away and then got sick.

[READ FULL STORY](#)



Photo courtesy of The Oregonian/OregonLive

FST Faculty in the News



Paul Hughes

Sweet Water and Bubbly Beer

Arminda Downey-Mavromatis | C&EN

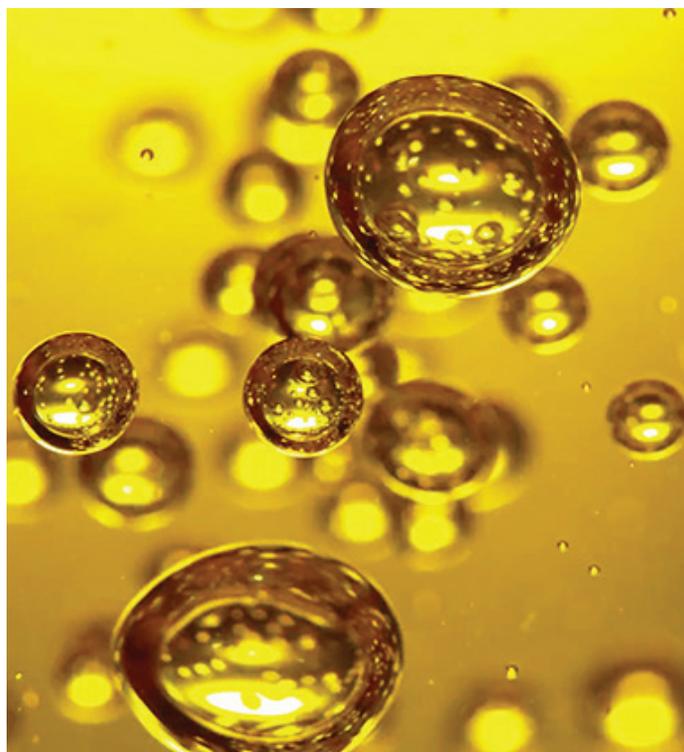
March 2, 2021

Liger-Belair tells Newscripts that beer bubbles, which form foam, can influence not only the visual appearance of the

beer but also the drinker's experience, "as bubbles also impact the transfer of CO₂ and aromas from the liquid phase to the headspace of the glass."

Paul Hughes, a professor of brewing and distilling at Oregon State University, contends that the volume of bubbles is another important factor. The larger the bubbles, Hughes says, the better the foam.

"My take is that for reliable foam formation and stabilities, homogeneous bubble size and consistent glass surfaces are the key," Hughes tells Newscripts. [READ FULL STORY](#)



Joy Waite-Cusic

A Cold Soak Lowers the Risk of Salmonella Growth on 'Sprouted' Foods

Chris Branam | OSU Newsroom

March 3, 2021

Soaking "sprouted" foods in cold water, rather than the more common practice of soaking at ambient temperature, lowers the risk of salmonella growth on these increasingly popular healthy snack foods, according to an Oregon State University study.

"If this soaking phase happens at ambient temperature, then there is a significant food safety problem," said Waite-Cusic, who is also OSU Extension's statewide specialist for home food safety and food preservation in the College of Public Health and Human Sciences.

"This study provides regulators with clear guidance on the risks associated with this new category of 'sprouted' products."

[READ FULL STORY](#)



FST Faculty in the News



Yanyun Zhao
Invited Speaker at the
USDA Food Loss and Waste
Innovation Fair

Dr. Zhao was invited by USDA NIFA to showcase her patented food coating technology at the USDA Food Loss and Waste Innovation Fair, May 26, 2021.

This virtual innovation fair highlighted businesses creating state-of-the-art technical solutions to reduce food loss and waste.

Participants hosted virtual booths to showcase their state-of-the-art food loss and waste activities, products, and innovations, such as new packaging to keep produce fresher, longer, or food products made from misshapen fruit.

The fair also showcased food sector industry leaders who are committed to reducing food loss and waste in their operations.

Zhao research lab website launched - Sustainable Food Processing and Packaging

Dr. Zhao and her team recently launched a website for her sustainability based research lab:

<https://agsci-labs.oregonstate.edu/sfpp/>.

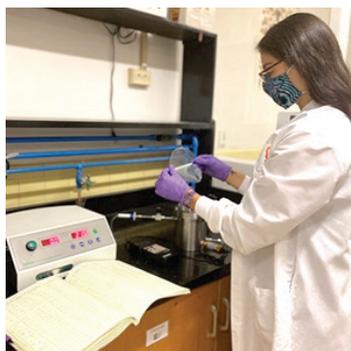
The Zhao lab aims to increase the sustainability of food processing and packaging through technology innovations by focusing on four research areas:

- Reducing food loss and waste throughout the food supply chain
- Developing environmentally-friendly food packaging solutions
- Valorizing food processing byproducts
- Studying energy efficiency and eco-friendly food processing techniques

Through these facets of research, we hope to innovate, inspire, and affect change for the good of the planet.



Zhao lab - Student Updates



*Rachel Rosenbloom (left)
Former Graduate
Research Assistant in
the Zhao research lab.
Rachel started as a Food
Technologist at Beyond Meat
in January 2021.*



*Clara Lang (left)
Graduate Research Assistant
in the Zhao research lab.
Clara is selected as a finalist
for the IFT Food Packaging
Division Poster Competition.*



News from Food Innovation Center

A Big Thank You to Dr. Qingyue Ling

By: Dave Stone, Ph.D.

After twenty years of service to OSU, Dr. Qingyue Ling will retire at the end of June.

Dr. Ling was one of the first scientists to work at the Food Innovation Center in 2001. He was instrumental in developing the shelf-life program and worked in various food engineering applications supporting food and beverage companies across the Pacific Northwest.

Dr. Ling pioneered work with a CO₂-laser to increase efficiencies in freeze drying fruits and grains and made substantial advancements in the use of RFID and smart-phone applications for the food and beverage industry.

Some of his notable client-based projects included:

- The launch of Fizzy Fruits
- Development of processing flowcharts for the pear industry
- Determination of color changes for potato chips distributed to Japan
- Extension of cottonseed oil shelf-life
- Monitoring refrigerated dairy trucks with remote sensing, among many others.

He is a valued mentor for many High School Saturday Academy students.

Dr. Ling has also been active on grant work, collaborating with engineering and food safety faculty across several impactful projects.

Prior to coming to OSU, Dr. Ling received his Ph.D. in Agricultural Engineering from Auburn University in 1997.

Dr. Ling also has a M.S. in Agricultural and Bio-Engineering from the University of Maine and a B.S. in Mechanical Engineering from Nanjing Forestry University in China.

Dr. Ling was promoted to Senior Research Associate in 2016.

We thank Dr. Ling for his long and dedicated service to OSU and wish him and his family all the best in the years to come.



Dr. Qingyue Ling, Associate Professor and Senior Researcher at the Food Innovation Center in Portland, Oregon, retires after 20 years of service to Oregon State University.

Congratulations FST MS Graduates

Fall 2020 and Winter 2021



Kevin Pigao, MS

[Enrichment Isolation of Brettanomyces Yeasts to Probe the Relationship Between Vineyard and Winery Populations](#)

Fall term 2020



Rachel Rosenbloom, MS

[Development and Validation of Sustainable Packaging Approaches for Longevity of Postharvest 'Bartlett' Pears and Safflower Oil](#)

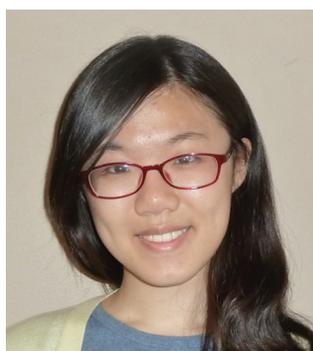
Fall term 2020



Adam Lauderdale, MS

[The Impact of Malolactic Fermentation Conducted by Oenococcus oeni on Brettanomyces bruxellensis Growth and Volatile Phenol Production](#)

Winter term 2021



Yi-Ting Shih, MS

[Development and Characterization of Novel Muffin Products for Promoting Sustainability](#)

Winter term 2021



Sara Maruyama, MS

[The Quality and Price Implications of Ingredient Lists for Dairy Products](#)

Winter term 2021



Arnbjorn Stokholm, MS

[Dry-Hop Induced Refermentation: An Overview and an Investigation of Agronomic Influences on Hop Diastatic Potential](#)

Winter term 2021



Kevin Nelson, MS

[Determination of Total Nucleotides, Nitrogenous Bases and Degradation By-Products with Respect to Various Processing and Preservation Techniques for Alaska Pollock...](#)

Winter term 2021



Karli Van Simaey, MS

[Examining Environmental and Genetic Influences on the Brewing Performance of Hops \(*Humulus lupulus*\) and Barley \(*Hordeum vulgare*\)](#)

Winter term 2021

Congratulations FST MS & PhD Graduates

Spring 2021



Quintin Ferraris, PhD

[The Extraction and Analytical Profiling of Bioactive Phospho- and Sphingolipids from Commercial Whey Protein Phospholipid Concentrate](#)

Spring term 2021



Casey Rush, MS

Ms. Rush's thesis link will follow in the September 2021 newsletter.

Spring term 2021



Bryna Rackerby, MS

[Effects of Whey Protein Isolate on the Human Gut Microbiota and Intestinal Function in Older Adults](#)

Spring term 2021

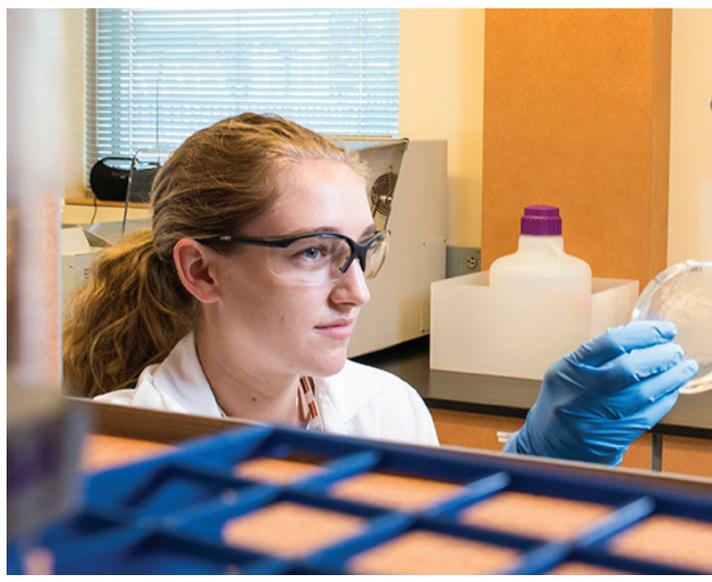


Daria Van De Grift, MS

Ms. Van De Grift's thesis link will follow in the September 2021 newsletter.

Spring term 2021

Update from the FST Graduate Program



Above: (former) graduate student Cara Boucher conducting research at Food Innovation Center, in Portland, Oregon.

Food Science and Technology (FST) has a total of 50 graduate students (12 PhD and 38 MS) enrolled this academic year, a record high!

Of those students enrolled, 1 PhD and 14 MS graduate students have successfully graduated, or will shortly graduate, this academic year.

FST received tuition support for an additional four students (in the amount of \$72,000) from the Graduate School.

This support was in addition to our tuition remission from the College of Agricultural Sciences (in the amount of \$326,132), totaling almost \$400K in combined tuition support for our graduate students.

FST featured in IFT Academic Update



Academic Update



FST is featured in the March 2021 IFT Academic Update in recognition of the connection to IFT materials and resources for K-12 educators provided by the FST website.

Building a pipeline to food science

Oregon State University has partnered with Feeding Tomorrow to feature career and teaching resources toward Feeding Tomorrow's "Motivate Promise" in bringing young minds to pursue the science of food.

[LEARN MORE](#)

Congratulations to 2021 FST College Bowl Team

College Bowl History

Since 1985, the Institute of Food Technologists Student Association (IFTSA) College Bowl Competition has tested the knowledge of student teams from across the United States in the following areas: food science and technology, the history of foods and food processing, food law, and general IFT/food-related trivia.

The College Bowl is designed to facilitate interaction among students from different universities and provides a forum for students to engage in friendly competition.

Teams for IFT Student Chapters compete in area competitions within the eight geographical areas of IFTSA prior to the IFT annual event.

The winning teams from the eight areas then compete in a final competition at the IFT annual event.

FST Team Advances to Final Round of IFTSA Regional Competition

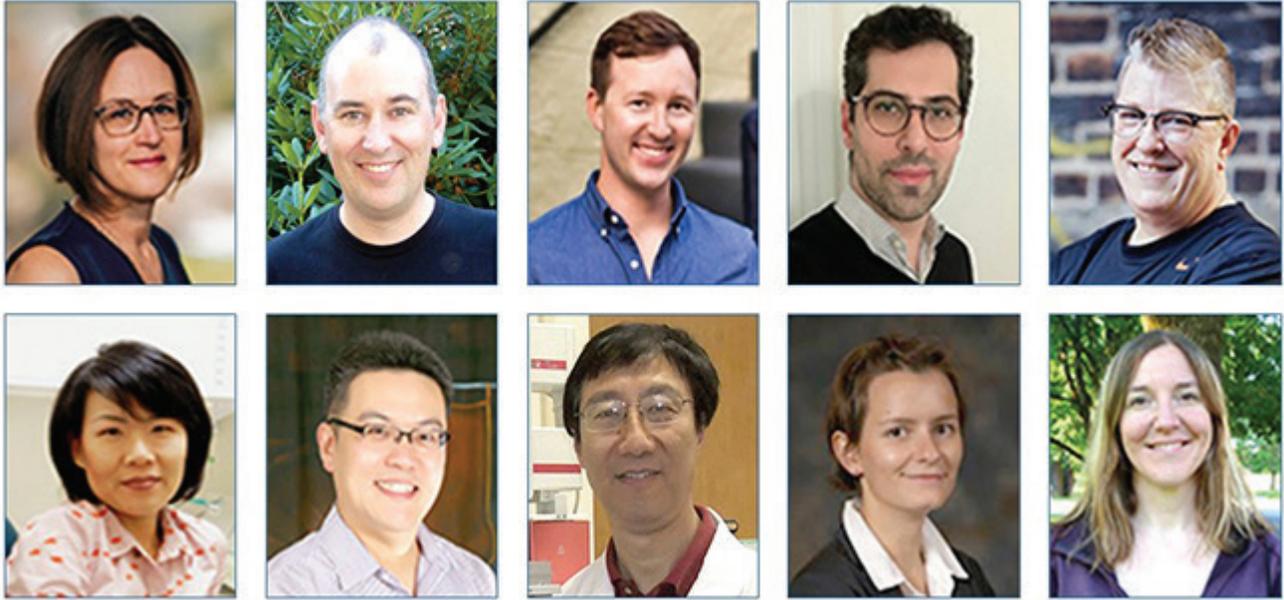
Congratulations to the 2021 FST College Bowl Team for advancing to the final round of regional competition.

Congratulations team: Melina Chigo Hernandez, Jenna Fryer, Melanie Hanlon, Taylor Johnson, Megan Ooi, Alexa Pullicin, Brandon Riesgaard, Suzanne VanderGheynst-Karagosian, Alex Varga; and Faculty Advisor: Dr. Elizabeth Tomasino.



FST in the News: Awards, Grants & Promotions

BUILD TEAM RECEIVES THE JAMES AND MILDRED OLDFIELD/E.R. JACKMAN TEAM AWARD



*BUILD TEAM (top row, left to right): Sheri Cole, Chris Curtin, Dave Dallas, Hadi Eshpari, Robin Frojen;
(bottom row, left to right): Juyun Lim, Si Hong Park, Michael Qian, Nadia Streletskaaya, Joy Waite-Cusic*

This award recognizes superior and distinguished interdisciplinary team achievements through teaching, research, international, or extended education activities of faculty and staff.

Presentation of this award serves to highlight the importance of an interdisciplinary team effort in achieving the goals of the College of Agricultural Sciences, Oregon State University and of Oregon agriculture, and to show in a tangible way that the College stands strongly behind such efforts.



Dr. Christina DeWitt

*Recipient of the Roy
G. Arnold/Agricultural
Research Foundation's
Leadership Award*

This award recognizes an administrator for outstanding contributions to the

research mission by the College of Agricultural Sciences at Oregon State University.

Sue Queisser

*Recipient of the 2021
CAS Professional
Faculty Award*

This award recognizes outstanding and exceptional service by classified employees and professional

faculty within the College of Agricultural Sciences at Oregon State University.



FST in the News:

Awards, Grants & Promotions

FST PROFESSORS ELECTED AS 2021 IFT FELLOWS

IFT (Institute of Food Technologists) is a global organization with members in more than 90 countries and is dedicated to advancing the science of food and its application across the global food system. The IFT Fellow designation is an honor bestowed upon an IFT member by their peers, recognizing exemplary achievement in the science of food profession. Each year, only about 10-12 members are elected as IFT Fellows.



Dr. Christina DeWitt

Elected 2021 IFT Fellow

Dr. Christina DeWitt was recognized by her innovative research, contribution to new academic and career programs, cooperation in a key role with nine

team partnerships among academia/industry/agency, and providing leadership and outreach to 10 countries, and as a co-editor in chief of a peer-reviewed aquatic food journal.

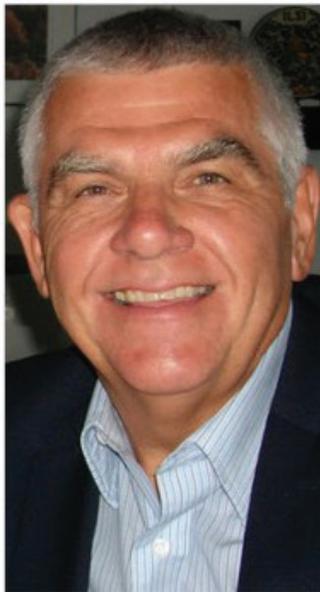


Dr. Lisbeth Goddik

Elected 2021 IFT Fellow

Dr. Lisbeth Goddik was recognized by her contribution in sustainable food systems in dairy research, overseeing transformative

changes in FST curriculum, research and outreach programs on sustainable food manufacturing, and her active role in communicating the science of food to the public. Goddik holds two endowed professorships sponsored by stakeholders.



NEIL SHAY INDUCTED AS A FELLOW OF THE AMERICAN SOCIETY FOR NUTRITION

One of two Oregon State University researchers elected 2021 American Society for Nutrition Foundation Fellow

“It is a distinct honor to announce the individuals selected as Fellows of the American Society for Nutrition,” said ASN President, Lindsay Allen, PhD.

“As trailblazers in the field, these nutrition leaders are recognized for their lasting contributions, enabling us to further the mission of pursuing a healthier world through evidence-based nutrition.

We celebrate them for their legacy and thank them for inspiring the next generation of global nutrition leaders.”

Dr. Neil Shay, professor of food science and technology, studies the nutritional regulation of gene transcription with a focus on the impact of plant-produced chemicals on nuclear hormone receptors and other regulatory proteins.

He has used cell and animal models and has helped supervise human clinical trials as well.

[READ FULL STORY](#)

FST in the News:

Awards, Grants & Promotions

GRANT AWARDS

McGorin, Zhao receive USDA (TASC) Program grants for Hazelnut research projects



Drs. Bob McGorin and Yanyun Zhao were informed by the Oregon Hazelnut Marketing Board that two proposals they submitted to the USDA Foreign Agricultural Service “Technical Assistance For Specialty Crops (TASC)” program have been funded.

OSU serves as the “Collaborating Organization” on two projects:

- Quantifying nutrient content of Oregon hazelnut skins to make Oregon hazelnuts more viable in the global marketplace; McGorin - PI, Zhao - Co-PI.
- Eliminating processing and shelf life trade barriers for Oregon hazelnuts; Zhao - PI, McGorin - Co-PI.

Each of the research projects will receive \$184,225 beginning September 1, 2021, for a duration of two years.

This funding will allow Drs. McGorin and Zhao to accept two MS students for two years.

Kwon, Penner, and Stone receive grant from Foundation for Food & Agricultural Research (FFAR)

Dr. Jung Kwon, PI, and co-PIs Drs. Mike Penner and Dave Stone, along with senior personnel Sarah Masoni, Jason Ball, and Ann Colona received funding from the Foundation for Food & Agriculture Research (FFAR).

With this 3-year grant (totaling \$667,570), the team will be working on developing innovative applications for improving seafood processing by-product utilization and providing sustainable nutrition.



PROMOTIONS



Dr. James Osborne
Promoted to full Professor
*Enology Extension and Wine
Microbiology*



Dan Smith
Promoted to Senior Instructor II
*Undergraduate Teaching and Head
Advisor*

Alumni Spotlight

Rachel Rosenbloom

Beyond Meat

I graduated from OSU FST with my master's in December 2020, and immediately moved down to Los Angeles to start work as a Food Technologist for Beyond Meat.

I work in research and development, specifically on the Formulation Team in the Innovation Department. It has been a huge transition, but Beyond Meat is home to a brilliant group of scientists and innovators from around the world, and it is a joy to collaborate with them every day.

I also joined the Beyond Meat Culture Crew, helping plan events for my peers and endeavoring to build a stronger community, especially coming out of the pandemic. I sincerely look forward to seeing my products in restaurants and grocery stores as a tangible representation of my participation in sustainability of the food industry through the lens of plant-based alternatives.

While at OSU, I worked in Dr. Zhao's Sustainable Food Processing and Packaging lab, specializing in edible, biodegradable films and coatings for shelf life extension of food. Performing this research often meant testing dozens of formulations before choosing the best iterations for application, which is not dissimilar from my daily life now.

My projects and goals may differ at Beyond Meat, but the initiative, creativity, lab skills, and organization required to succeed in the graduate program are directly applicable to my current lab environment.

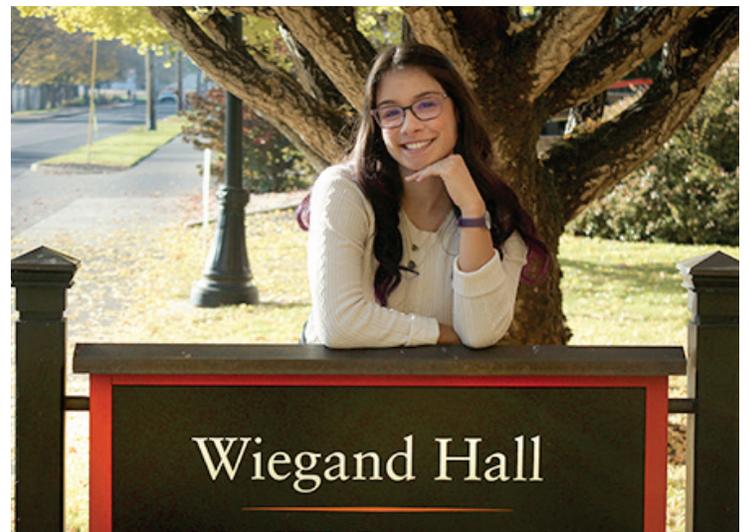
Research in FST also taught me how to react to unsuccessful trials and inconclusive data, and how to receive feedback on my work and adjust accordingly. Additionally, the program provided me with ample practice in necessary public speaking and presentation skills that are instrumental to my participation in Innovation Department meetings (such as presenting a summary of my work thus far to 100 people over Zoom last week!).



Rachel Rosenbloom, 2020 FST MS Graduate, and currently a food technologist at Beyond Meat, located in Los Angeles, California.

I look forward to many future visits to the OSU campus and Wiegand Hall, perhaps to attend the next evolution of a symposium like Taste of Research or an FST fundraiser, as well as any virtual events or future IFT meetups over the years.

I will always be grateful for my time in Corvallis, and hope to further engage in our FST alumni network as I continue my journey as a food scientist.



Rachel Rosenbloom outside Wiegand Hall in November 2020, prior to her graduation in December 2020.

Help Transform FST



An invitation from Dr. Goddik to invest in the future of FST

Thank you for catching up with us through our June 2021 newsletter. We believe that the work we do in FST has a positive impact on our students, stakeholders and the earth. **We are crafting the future of food!**

If you want to help us advance more effectively, there are several ways to help:

1. Endowment supporting Sustainable Food Program

This endowment will help us expand our sustainable food program and attract the best and brightest students and faculty, including the Sustainable Food Processing Specialist position we hope to launch. Multiple contributions can be made towards endowments that begin at \$50,000. We have the goal of raising \$250,000 to directly support a new Food Processing Specialist.

2. Annual FST Sustainable Food Manufacturing Forum

The first annual conference is scheduled at OSU in September 2021. This conference will showcase state-of-the-art sustainable food manufacturing research from OSU and beyond and will provide opportunities for food and beverage manufacturers to explore new progressive technologies. All beginnings can be hard, and we need help to get this conference established and welcome donations as well as sponsorships. We hope to collect \$30,000 to support the conference for each of the first two years.

3. Taste of Research

This is our industry outreach event that showcases FST faculty and graduate student research. We would like to invite an alum back each year to present their current research. Bringing alumni researchers back to FST helps inspire current graduate students and demonstrate impact of our graduate program. We need \$4,000 to make this happen.

4. The Alumni Scholarship

This scholarship supports FST students with great financial needs. Alumni helped fundraise to establish the scholarship endowment and each year we select a recipient who otherwise might drop out of FST due to financial hardship. Help us grow this endowment to provide help to multiple students. It is our goal to raise \$15,000 each year to continuously grow the endowment. To make a donation to this scholarship, please go to: [Invest in the Alumni Scholarship Endowment.](#)

With your help, we can continue to make FST better.

Private donations are behind many of the great changes in FST such as the dairy and brewing pilot plants, our professorships, and our scholarship endowments. You can make a difference by supporting the 4 priorities above, or other initiatives.

Please reach out to me for further discussions:
Lisbeth.goddik@oregonstate.edu

There are many ways to support the Department of Food Science and Technology, including the initiatives above.

You can [click here](#) to make a gift online, send a check to the OSU Foundation, or talk to someone on our team about other creative ways to give including appreciated assets, beneficiary designation, IRA charitable transfer, and many more.

Please contact Alexis Eichler for more information:
alexis.eichler@osufoundation.org, or 541-517-6778



Fun with Food and Spirits

Recipes by: [Michael Adams](#), Food Scientist
[Jason Ball](#), Research Chef/Sr. Faculty Research Ass't. 1
FIC Product Development Team

Crab & Shrimp Fried Rice Recipe

Rice Ingredients: 2 cups long grain rice, water for rinsing rice, 4 cups water ([for cooking rice](#))

**Prepare rice the day before or day of. If preparing the day before, store uncovered in the refrigerator overnight.*

You will want to have a cutting board and two bowls:

Bowl #1 Ingredients

- 1 Serrano Pepper, ¼ of it diced very finely
- Water, 2 spoonful's
- Fish sauce, 4 spoonful's
- 1 Scallion, Green Parts sliced finely (save whites for Bowl #2)
- 2 Limes, zest from one, and juice from both
- 1 Shallot, ½ sliced thin (save whites for Bowl #2)
- Miso, ½ spoonful
- Ginger, thumb size knob micro-planed or finely diced

Method - Bowl #1

- Prepare all items as listed above and stir to combine in a bowl. Set aside until ready to cook.

Bowl #2 Ingredients:

- 1 Lamb Merguez Sausage (or chorizo, or Italian sausage)
- 3 each Roma Tomato, remove seeds, and cut the petals into thick chunks
- Green Onion (reserved white part), trim stem end, and cut into quarters lengthwise
- 10 cloves Garlic, sliced
- Shallot (reserved ½ from above) diced large
- 6 each Cooked Shrimp, peeled and cut into chunks
- ½ Cup cooked Crab meat

Method - Bowl #2

- Cut all vegetables as listed above and put in a bowl
- Cut the sausage into small chunks
- In a large cast iron pan, heat oil over medium heat
- When oil is hot, add sausage and cook for 3-4 minutes, or until nicely seared
- Add all of the cut vegetables from Bowl #2 and cook for 3-4 more minutes or until the sausage is cooked through
- When done, remove the cooked sausage and vegetable mixture and place in a bowl.
- Wipe out the cast iron pan to clean



Featured Cocktail

Barbados Cocktail (makes one cocktail)

Ingredients:

- 1.5 oz. Dark Rum (I prefer 0.5 oz. white rum and 1 oz. black rum; don't use spiced rum)
- 1 oz. Velvet Falernum (I used John D. Taylor's but here is a [recipe for Paul Clarke's Falernum #9](#))
- 0.75 oz. Fresh Lime Juice (you can use the stuff in the plastic grenade but fresh is best, you'll need a slice for the garnish anyway)

Method:

1. Measure your rum(s), Velvet Falernum, and lime juice into a cocktail shaker.
2. Fill the shaker up halfway with ice cubes (if you're doubling this recipe, fill the shaker to the top).
3. Put the lid on your shaker and shake vigorously for 25-20 seconds (your shaker should ice over). Double strain* into a chilled martini or coup glass, serve up with a slice of lime for garnish (not pictured).
4. *Shaken cocktails look prettier when double strained, it helps catch the shards of ice created during shaking.
 - To double strain, first place a fine mesh strainer over your serving glass.
 - Remove the mesh strainer, garnish, and serve! Cheers!



To Finish Crab & Shrimp Fried Rice

- Get ready to rock n' roll – once you start cooking you can't stop this process!
- Heat the cast iron pan over medium heat
- Add oil to the cast iron pan – use more than you think you need (approx. ¼ cup)
- When the pan is hot, add the rice in a thick layer and spread to cover the pan. After covering the pan – leave the rice undisturbed in the pan and cook for 6-8 minutes or until you start to see that they edges are golden brown and crispy
- At this point, you should add the cooked sausage and vegetables. Stir to combine and break up the rice a bit
- Continue to cook for 2-3 minutes
- Turn off heat, and add the sauce mixture from bowl #1
- Stir to combine
- Plate up dishes and garnish with fresh mint and chives. You can also add more fish sauce or lime juice if you'd like to! Enjoy!

