Greetings from the Chair

To our Food Science Alumni, Friends and Family,

As Badgers, the term “On, Wisconsin” means a great deal to us and elicits memories of successfully pushing through adversity and meeting weighty challenges. With origins in football, “On, Wisconsin” has broadened in meaning to apply to a host of events and endeavors and certainly applies to our campus now in the midst of the COVID-19 era. Facemasks, social distancing, sanitizer, Zoom, re-opening plans, contact tracing, and video editing are a few of the new key terms and tasks we are all grappling with here at UW-Madison, Food Science to continue to safely provide instruction, conduct research and continue outreach programming under the cloud of the COVID-19 pandemic.

Although the physical, face-to-face connections are fewer, the Food Science community remains vibrant, optimistic and productive. We continue to seek novel, innovative advancements under these challenging times, some of which you will read about in this Fall newsletter.

We also are blessed to welcome new faculty and staff hires bringing expertise and strengths into the department, as we recognize the retirements of some of our greatest scientists.

As Chancellor Blank often states, these are trying times and we are not out of the woods by any means, but with our community of Food Scientist alumni, family and friends we echo the words written over a hundred years ago; ‘Forward’ is our driving spirit loyal voices ring.

On, Wisconsin! On, Wisconsin! Raise her glowing flame
Stand, fellows, let us now salute her name!

With warm regards and

On Wisconsin!

Scott A. Rankin
Professor and Chair
Arnoldo Lopez-Hernandez and Monica Theis are two instructors within the Food Science Department who work together to teach Food Science 301, Introduction to the Science and Technology of Food. This class has both a lab and a lecture component and has shifted to online instruction.

**How has it been working together and redesigning the course?**

Arnoldo Lopez-Hernandez

I feel very lucky to have Monica as my co-instructor, she is great!! We have worked together for a few years and have figured out a good system to do this class. Monica and I have a similar teaching philosophy and communicate often in a very efficient way.

Monica Theis

I couldn’t ask for a better co-instructor. Professionally, we complement each other really well—especially for this course. It is required for both Food Science and Dietetics majors. Arnoldo is a Food Engineer and I am a Dietitian. It is really fun (and I think valuable to the students) to bring our unique perspectives into this class.

**How has the course been redesigned?**

Lab activities are an important component of the course and we have been trying to combine mini-lab lectures, videos, and a few hands-on activities to replace the traditional in-person labs. Evidently, students have limited access to equipment and material to complete certain activities, but we are trying to compensate for that by showing them videos and using simple examples (like different ways to cook an egg or baking cookies) to discuss important Food Science concepts.

Rather than labs, we created at home “activities”. For example, I used to do the protein lab where we baked yeast bread with flours of varying protein content. This fall Arnoldo and I created a new protein lab where students studied egg protein. We had them make “fluffy omelets” that required making a foam with the whites. Students also made observations about denaturation and coagulations.
Instructional Spotlight (continued)

What challenges have you faced teaching remotely?

Arnoldo Lopez-Hernandez

The major challenges include:
1) finding strategies to motivate students to be more involved in the lectures, we want them to feel comfortable and ask as many questions as they want during class time;
2) stay connected with the students outside of the regular lecture time, we are being very flexible and offer multiple opportunities for students to meet with the instructors using Blackboard Collaborate,
3) Deliver content that is meaningful, this semester we have been trying to use more food-related examples to connect the concepts discussed in class with real life situations.

Monica Theis

“Zoom fatigue” is real. As hard as we work to keep lectures interesting and engaging; it is simply difficult for students to stay focused online day after day. For me, the most difficult part is staying caught up with grading. I so prefer to grade hard copies because I can read, think and provide feedback simultaneously. I find this is much more difficult online. Also “out of sight; out of mind” is a problem for me. I am used to seeing stacks of papers on my desk. They are a constant reminder that I must stay caught up on grading. Finally, online simply takes more time compared to in-person.

Any closing comments?

Switching to remote instruction has been challenging but has given us the opportunity to explore new teaching techniques and ways to communicate with our students. We are committed to delivering meaningful content and a good learning experience to our students despite the challenges! There is no doubt I miss seeing students in the classroom, the labs, and during office hours but understand these are challenging times for everyone and the remote model is a good and safe alternative. Hope everybody is staying safe and learning a lot! And wish we can go back to campus soon.

The students have been super troopers through this. I am so proud of them and grateful for their patience and understanding as we all navigate through this rather surreal time.

Yet—I can’t wait to get back to the classroom. I so miss the in-person camaraderie with students, faculty and staff.
“We are very excited to still be able to do PD this year, even though it will be a little different. One of the major changes we had to make was reducing the team sizes so that teams could socially distance and follow the guidelines for gatherings in Madison. Another hurdle we had to address was finding a place to get together and work on our projects since the FAL is for class use only. Teams are working out of their own kitchens and the competitions have altered their guidelines towards working from home kitchens for the year. We are very excited to see what creative products our teams can create this year!”

— Nathan Riehle and Neve Blanz, Product Development Chairs

"We are excited to apply the concepts we have learned while connecting with food science students from different grades to create an innovative product that we are all proud of. Although this year we are limited to only using equipment found in a home kitchen, we are excited to see how we can be creative despite this limitation."

— Kaitlyn Younger, Cameron Zalewski, Tyler Schroepfer, Tori Budin, Rachel Zuern

Smart Snacks for Kids Product Development Competition

Kaitlyn Younger was a first-time competitor last year and was a finalist in the Smart Snacks Competition. Her team placed top 6 in the country! Kaitlyn is hungry for more and we can’t wait to see what she and her team will come up with this year. Wishing the best of luck to the eight teams competing in five competitions this year. Stay tuned for results!

Victoria Budin, a junior in Food Science, got exceptionally creative with the extra time she had on her hands while adjusting to the pandemic. “One weekend my dad was having a socially distanced gathering with some friends from work and I offered to bake something,” she said. “I decided to pick something that would take up a good amount of my time so I decided to make COVID cookies.” Finding that she really enjoyed the process, she launched “Iced Illustrations” and is now in the business of mail order cookies!
In every food system, protein chemistry plays a vital role in not only the sensory characteristics, but also to the food’s functionality. Because of their complex structure, proteins form unique networks, also known as matrices, that interact with other components in the food, providing different textures and tastes. This fundamental principle is what interests new Assistant Food Chemistry Professor Dr. Audrey Girard and is the basis for her research.

Dr. Audrey Girard is an Anna Julia Cooper Postdoctoral Fellow, a position that allows her to start her research without having to teach at the same time. This provides the opportunity to have full focus on developing her lab and research goals without the added workload of teaching Food Chemistry. Dr. Girard is appreciative of this fellowship because it gives her the flexibility needed to plan and begin her research. Dr. Girard’s interest in protein chemistry developed mainly during her PhD program but she has always been interested in science. She landed a research position studying molecular sieves as an undergraduate majoring in chemical engineering; though she switched her major to bakery science and management, she continued working in research labs. Throughout her schooling, she has pursued her passion in research and is excited to begin here at University of Wisconsin-Madison.

Broadly, Dr. Girard’s research goal is to improve quality and promote efficient use of foods.

She wants to do this through finding more sustainable ways of reusing potential waste streams as well as benefiting human nutrition through protein chemistry. In having a deeper understanding of protein chemistry, there could be more innovations in food taste and texture as well as producing novel matrices that could benefit human nutrition. Dr. Girard believes that studying polyphenolic proteins is a great way to delve into this subject. In the past five years, Dr. Girard has studied these secondary metabolites from plants and looked at the effects of how they interact with different proteins. For example, tannins, common polyphenols found in wine, are the compounds that make wine astringent and give a dry mouth feeling. That feeling is a result of the tannins binding with proteins in our saliva. Dr. Girard has used this interaction and applied it to different protein matrices in cereal grains (mostly wheat gluten) to strengthen them. The tannins break the disulfide bonds, but they encourage crosslinking between proteins with tannins in between through non-covalent interactions. This leads to stronger protein matrices, which can be seen through a better mixing profile in doughs, giving a more voluminous bread. It can also stabilize a batter and increase its viscosity. The tannin-protein interaction was also shown to lead to stronger films and therefore be less susceptible to ripping.

Based off her previous work, Dr. Girard is interested in studying the application of tannin-protein interaction in plant-based proteins.

Plant-based proteins normally have a distinct profile when compared to animal-based proteins, like having a weaker bite and a different texture. By using the tannins, Dr. Girard hypothesizes that the protein matrix will be strengthened, thus leading to a stronger bite and a more appealing texture. This could have a large impact in the plant-based protein industry by producing novel texture with naturally occurring ingredients, which consumers are likely to prefer.

Polyphenols also offer potential benefits like antioxidant and anti-inflammatory properties, which could further benefit food shelf life and human health. By valorizing these polyphenols from waste streams (like fruit pomaces and cereal brans), the polyphenols can be extracted and used as ingredients with the goal of strengthening the protein matrices.

Although the COVID-19 pandemic has hindered her ability to get to know students, she is excited to be researching and teaching at University of Wisconsin-Madison because of the collegial collaborative feeling in the department. Since the program is one of the best Food Science programs in the country, she felt she could work and succeed here while still being challenged. Dr. Audrey Girard is excited to teach Food Chemistry and incorporate her research in the classroom. She wants to provide information on new, cutting-edge research in the field to inspire students about opportunities that Food Science has to offer. We are excited to see what her research will entail and are glad to welcome Dr. Audrey Girard to the Department!
Dr. Abigail Thiel has studied Food Science at UW-Madison for 10 years doing both her undergraduate and graduate work. She finished her undergraduate degree in May 2014 and defended her Ph.D. in June 2020. Her Ph.D. work focused on studying the relationship between arrested coalescence and fat, laying a foundation for reducing fat content in whipped foods and creating nearly identical lower fat versions, along with creating better textural and rheological properties in frozen desserts.

Dr. Thiel joined the department in July 2020 as a full-time lecturer. She is funded by an instructional grant offered through CALS and fills a variety of roles. She helps organize and advise the Senior Projects and lectures for classes such as Food Chemistry and Food Manufacturing. In addition to lecturing, she runs lab demos, grades students’ work, and creates problem sets that help students be successful in their Food Science courses.

Dr. Thiel realized her passion for teaching while working as a Teaching Assistant during her last three years of grad school. She fell in love with interacting with students and seeing their faces light up when she was able to help them comprehend a complex topic. How people learn and models of teaching have also been of interest to her leading her to turn to innovative teaching strategies, especially during COVID-19. She strives to teach Food Science not only to students but to the general public, believing that Food Science is an important discipline to all. During the initial stay-at-home order in March, Dr. Thiel was stuck at home writing her dissertation. She needed another means of expression to share her passion for Food Science, so she started her own YouTube channel. She also maintains a blog. Through these platforms, she shares her knowledge of Food Science with everyone.

So far, Dr. Thiel describes her new role as “super-fun and super-rewarding”. One challenge she faces is missing the face-to-face interaction with students. Like many professors, she relates to the feeling of lecturing “into the void.” However, she still enjoys meeting with students one-on-one online.

Long-term, Dr. Thiel hopes to find post-doctoral work abroad and eventually gain a professorship at a university. During her Ph.D., Dr. Thiel spent 6 months in Australia in a lab with a collaborator. After completing her Ph.D., she wanted to go abroad again; staying in Madison was not her original plan. However, with the pandemic, a lot of international opportunities were closed as the world entered “survival mode.” The lecturer role at Madison opened and she knew it would be a great fit for her. The Department could not be more excited about working with Dr. Thiel.

Her passion for teaching, Food Science, and innovation is evident to every student in her classes and to her colleagues in the Department.
New Face in Babcock Hall: Dr. Victor Ujor

The Department of Food Science is excited to welcome Dr. Victor Ujor as he assumes a position of Assistant Professor in Fermentations. Dr. Ujor joins us from the Agricultural Technical Institute at The Ohio State University where he is an Assistant Professor in the Bioenergy and Water Treatment Management Program. Dr. Ujor earned his Ph.D. from the University of Westminster London. Watch for a full article about him and his research in the spring edition of IMPACT.

Congratulations on Retirement!
Dr. Srinivasan Damodaran

Professor Srinivasan Damodaran ("Damo") retired from the Department of Food Science in June of 2020 after 36 years of service. He joined the department on April 1, 1984 as an associate professor. Damo’s research revolved around three major areas: structure-function relationship of proteins/enzymes at the air-water, oil-water, and biological membrane-water interfaces; improving the functional properties of food proteins; and conversion of underutilized agricultural biomass into value-added biodegradable industrial polymers.

In the applied area of food science, Damo developed a technology to eliminate off-flavor development and browning discoloration in whey protein concentrate (WPC) and whey protein isolate (WPI).

Damo trained over 40 graduate students and post-doctoral research associates. He taught Food Chemistry (FS 410); Food Functionality (FS 514) and Food Proteins (FS 610).
Congratulations on Retirement!
Dr. Mark Etzel

The Department of Food Science congratulates Dr. Mark Etzel on his recent retirement!

Professor Mark Etzel began his career at UW-Madison in 1989 and is an expert in food engineering and bio-separations. Through classroom teaching and laboratory research he interacted with over one thousand undergraduate and graduate students.

The dairy industry was a major beneficiary of his work. In the 1990s he discovered a novel way to isolate the protein glycomacropeptide (GMP) from cheese whey; an abundant by-product of cheese making. GMP is an unusual protein, in particular, it is the only known protein that is missing the amino acid phenylalanine. Children with the medical condition Phenylketonuria (PKU) cannot metabolize phenylalanine and therefore cannot eat foods that contain protein without incurring severe and permanent cognitive dysfunction. Professor Etzel collaborated with Professor Denise Ney of the Department of Nutritional Sciences over the next decade to develop the first foods for children with PKU that contain intact protein.

Several patents supporting this technology were obtained through WARF, and a start-up company brought these discoveries to children around the world in the form of GMP-containing beverages, chocolate pudding, and snack crackers. The royalties from these patents helped to fund further research on this topic and to send undergraduate students to the annual meetings of the Institute of Food Technologists where they won first place awards year-after-year for novel new food products. The start-up company was acquired by a large international company in 2017 for $64 million.

Professor Etzel continued to discover new ways to purify proteins such as GMP from milk and cheese whey. His recent patents are on charged ultrafiltration membranes that eliminate the need for process scale chromatography. These patents are now under license for use in the dairy industry. Other patents from Professor Etzel’s research are licensed by 3M to remove deadly viruses from new drugs made by modern biotechnology advances.

More than the research grants brought in, the scientific publications, or the dozens of patents, it is the students in the classroom that Professor Etzel treasured most. Quotes from some of Dr. Etzels' past students:

“One of the best courses I’ve taken at UW.”

“He really wants the students to succeed. He gives us all the tools we need to be successful. His quirkiness and positive attitude makes it a joy to come to class. He is very knowledgeable and very approachable. By far one of the best professors I have had. Thank you!”

To Professor Etzel, teaching was a joy. It’s probably what he will miss most as an Emeritus Professor.
Thomas Michael Blattner, age 77, passed away peacefully on July 10, 2020 in Mazomanie, WI due to pancreatic cancer. He was born January 1, 1943 in Milwaukee to Sylvia and Edward Blattner. He attended Blessed Sacrament Grade School and Don Bosco High School. Initially he attended Marquette while working as a draftsman for GE, eventually transferring to UW-Milwaukee where he graduated with a BS in chemistry.

His first job after graduation was as a research chemist for Joseph Schlitz Brewing Company. He also worked at Bordon Foods before beginning the favorite chapter of his career: UW-Madison. Tom was hired as academic staff to manage Babcock Hall dairy plant, teach, and do research. For 22 years he proudly taught the farm short course in dairy processing. By retirement in 2008 he had advanced to administration in the Food Science Department and achieved emeritus status. He often said it was the best job he ever had, and he truly valued and appreciated his clever and considerate coworkers.

He was an active member of St Francis Xavier Catholic Church, having served on the picnic committee and parish council, and was a member of the Knight’s of Columbus and the St Vincent de Paul Society. He also volunteered at Sauk Prairie Hospital, St Vincent Food Pantry, and RSVP by bringing people to their appointments. Woodworking, hiking, astronomy, chess, classical and bluegrass music, travel and photography were some of his many interests. He was a commonsense and practical self-taught handyman for his and his children’s homes. He tried to never miss getting together with the Mazomanie ROMEOs or Madison Bike and Bowl.

It was at a party for a departing serviceman in the summer of 1965 that he met Barbara Ann Brill. Immediately they knew this also was chemistry. They were married in January 1969, and commemorated 50 years together in 2019 with a fantastic party of family and friends gathered over a lifetime. His absolute proudest accomplishment were his children and grandchildren. He was dearly loved and will be terribly missed by Rebeccan Ann (Eric) Powers, Zachary, Colby and Isaac; Jennifer Elizabeth (Thomas) Wankerl, Solomon, Scarlett, Haven, Violet, Opal and Hazel; Peter Michael Blattner and Benton; and Kathryn Therese (Benjamin) Seibel, Maxwell, Theresa, Samuel and Nora. He is survived by Margaret (Daniel) Nencka and Richard (Shari) Blattner. He was preceded in death by siblings Mildred (Sebastian) Bea, James (Lori), John (Cathy), and Charles.

A private service was held July 18, exactly 55 years after first meeting Barbara. Interment at St Francis Xavier columbarium, Cross Plains, WI.

Perhaps they are not stars in the sky, but rather openings where our loved ones shine down to let us know they are happy. – Proverb
At the University of Wisconsin-Madison, diversity is a source of strength, creativity, and innovation. Each person that is involved with the university has a unique identity, culture, background, experience, and outlook that enrich the university community. In the last five-year strategic plan, the Food Science Department has prioritized equity and diversity; however, the tragic death of George Floyd in May 2020 and the ensuing protests for justice and equality led the department to realize that more effort is needed to be put into these issues. This led to the creation of the Equity, Diversity, and Inclusion (EDI) Committee.

This group advises the department on the issues of equity, diversity, and inclusion and will help with implementing initiatives to increase the collective competency in these areas. The representatives include a mix of faculty, staff, and a graduate student. These include Sam VanWees, Tami Noll, Theresa Pillar, Tu-Anh Huynh, and Bradley Bolling, acting as the committee chair. The committee is hoping to also recruit an undergraduate student and a postdoctoral fellow to add additional perspectives to the group.

The first meeting of the committee occurred earlier this fall in which the work for the next few months was prioritized. The two main areas of focus are training in EDI and improving the department’s ability to recruit diverse students, staff, and faculty to the department. For training, the committee would like to figure out ways to increase professional competency in creating an inclusive workspace in Babcock Hall and the field of food science. There are quite a few programs and efforts in this area on campus, and the committee is trying to figure out how best to present opportunities to those in the department.

Also, the EDI committee would like to track the progress in this area so they can determine if participation in events, training, or other professional development is improving the climate here on campus. The committee is working to be more responsive in engaging with programs to recruit underrepresented students to the department. They would like to develop stronger collaborations with programs that aim to increase the enrollment and involvement of the underrepresented minority students, offer mentoring, and enhance their experience here at UW-Madison. Also, the committee wants to advise the department on best-practices for hiring and recruitment of faculty.

The committee is hoping that their efforts will have a positive impact on matters related to equity, diversity, and inclusion and will improve the experience of those in the department—students, faculty, staff, and postdocs, and particularly the underrepresented minorities in the field. They seek to improve their ability to develop and maintain welcoming spaces in classes, meetings, and social events. The climate impacts those beyond the department—via images on the departmental website, displays in the building, and social media/outreach activities. Also, advancing professional competency in EDI will help graduating students create welcoming climates in their future positions. The Institute of Food Technologists (IFT) have also begun developing programming and content in this area that strives to create a world where diversity and inclusion is viewed as essential to the advancement of Food Science.

The Equity, Diversity, and Inclusion Committee welcomes any suggestions and feedback on their efforts from anyone connected to the department.
Robert C. Lindsay
Graduate Student Support Fund

The Food Science department wishes to express our gratitude to Dr. Carol Karahadian (MS’84, PhD’88) for her generosity in establishing a fund in honor of Professor Robert C. Lindsay. This Fund will support graduate students in the Department of Food Science focusing on Flavor and Food Chemistry-based research.

Dr. Lindsay retired as a full professor in the department and held research interests focused on flavor chemistry, particularly chemical mechanisms leading to the formation or destruction of flavor compounds. A major portion of his research program focused on developing an understanding of the development of natural flavors, including cheese and other dairy flavors, fish and seafoods, and characterizing flavors in meats.

Internship Spotlight (Virtual): Amber Heun

Amber Heun, Senior in Food Science, completed a virtual internship this past summer as an R&D intern for Mars Wrigley, maker of iconic products like M&M’S®, Snickers®, Orbit®, Extra® and Skittles®. Amber was originally going to be located at the MW Global Innovation Center outside of Chicago, IL. Instead, she ended up staying in Madison and working virtually from her apartment. At first, she was upset she could not spend the summer in Chicago completing her dream internship in-person, but she ended up having a fantastic experience. Connections were made through virtual events such as game days and coffee chats, meetings with mentors, and working cross-functionally with other interns.

Though the online work environment can be challenging to navigate, she found the work extremely rewarding and meaningful. Amber was surprised that she could still do R&D related projects and make an impact in an online format. Through the internship, she learned about her work style and that candy is a lot more technical than you think!
Internship Spotlight (In-Person): Liz D'Auria

This past summer, Food Science senior Liz D'Auria completed an in-person quality assurance internship at Lindt & Sprungli in New Hampshire, USA. Some of her responsibilities included analysis of rework formulations, coordinating a temperature study, and assisting in data collection for R&D trial. One of her main challenges was not knowing many connections within the company. Once she reached out, the welcoming staff encouraged the new communication and allowed Liz to gain greater understanding for what they do. She enjoyed working with people that shared her passion for learning and helping others. Although COVID-19 posed many obstacles, Lindt & Sprungli implemented many safety precautions allowing Liz to be on-site, working hands-on with a multitude of testing equipment. This internship provided Liz with insight into the different routes possible in Quality and R&D. In quality assurance, she was able to apply her technical skills and creativity to solve on-going problems within the company. Liz enjoyed her experience so much that she has accepted a position in the QA department with Lindt & Sprungli after graduation.
2019 Food Science Graduate
Emon Khadem

Emon Khadem is a 2019 graduate of UW-Madison, with a degree in Food Science. He now lives in Dallas, Texas working for PepsiCo as an Associate Food Scientist. He works closely with chefs to help bring break-through innovation to the market. It is rewarding work to excite consumers and marketers with new ideas! Emon also developed a passion for the technical aspects of food science through his classes at UW-Madison.

Emon, what has been the most surprising thing about transitioning to post-graduation life?
When you transfer from college life to post-grad life, you mature pretty quickly. You get to take time and reflect while adapting to a new place. In my transition period, I went and explored the Dallas. There are a lot of great things you can learn from leaving and coming to a new place. Great food, great people. Overall, the transition was smooth, though it was hard to leave friends and family. If I could give recommendations to new hires—connect with subject matter experts. Get to know the people who are more experienced. A full-time position is different than an internship in that you get more time to learn and get comfortable.

What experiences have prepared you for your job?
Getting involved with the Food Science Club was what helped me the most. It is really important to get connected to the industry and Food Science Club can get you there. Food Science is one of those majors that you will learn focused and specific curriculum. The curriculum doesn’t include product development, but the product development teams were really strong. I did IFT twice and held the PD chair position in the Food Science Club. It is crazy to think about what those things have done for me. They built my work ethic and allowed me to apply what I learned in classes. What I do now is so similar to what I did on a PD team. I have even had these crazy coincidences where someone in the industry will ask me about something that I know from working on the PD teams. You don’t realize how implementable and transferable the things you learn are!

What advice can you give to current UW Food Science Students?
Find your interest area and go learn about it. Don’t be afraid to think outside the box when it comes to finding a way to learn about what you care about. Not everyone in food science needs to be a product developer. Working in industry, you realize there are so many different jobs you can do with a food science degree. Understand what you want, focus, and go for it!

What was your favorite class while you were at Madison?
I really liked Rich’s confectionary class. I liked the self-learning aspect. It’s crazy how much the class has helped me. The core knowledge from the course is really transferable. I use that class more than anything else in my day-to-day.

What advice would you give to somebody considering studying Food Science?
Join us!

foodsci.wisc.edu
For this year’s annual conference, the Frozen Dessert Center (FDC) presented Non-dairy Frozen Desserts: Ingredients to Novel Applications, a short course centered around non-dairy and plant based frozen desserts. This short course is an annual event that started in 2017 with the mission of updating the industry on current frozen dessert research being done within academia and by industry. The FDC encourages and invites product developers, manufacturers, researchers, distributors, and sales personnel to come to the conference each year. This year, the conference had to be given virtually with the presentations online and on-demand with a live Q&A session. The online presentations during late October of 2020 explored the makeup of commercially available frozen desserts, compared functionalities of plant-based ingredients to conventional dairy ingredients, and introduced new technology creating cow-free dairy proteins.

The speakers included a variety of people from University of Wisconsin-Madison and companies within the food industry. There were also student presenters including PhD student Lauren Sipple and PhD student and IFTSA president Sam VanWees who shared their research findings, much of which focused on dairy-based frozen desserts.

This year’s conference was the first that FDC Director Emily Daw was involved with organizing. She had attended in previous years but was excited at the opportunity of getting involved and being a part of the FDC.

Amidst COVID-19, the conference had to transition to a virtual experience rather than the typical in-person event. There were a few more challenges that arose because of this like general presentation morale and needing to record and upload the content (listening to the audio of your own voice on repeat and wondering if that’s how it actually sounds).

When explaining complex subjects without a live audience present, it is important to be considerate of how the material is presented since there is no one to ask clarifying questions.

Because of this, there is an extra emphasis on being engaging when presenting through a virtual format. Although there were a few extra hurdles with the online aspect, it did allow for a larger audience. There were more attendees this year than there had been in the past, some even attending internationally. The implementation of a virtual conference widened the audience to frozen dessert research and has continued this conference’s mission of inspiring curiosity and providing a deeper understanding of the science of frozen desserts.
The Department of Food Science is excited to welcome our Marketing Interns; **Bella Ludwig** and **Kate Higgins**. Bella is a senior and Kate is a junior here at UW-Madison. They are both pursing degrees in Food Science. Bella has a passion for applying her food science knowledge in the kitchen and is eager to get involved in organic certification with hopes of starting her own organic farm in the future. Kate enjoys competing on the UW-Madison Sailing Team and is excited to start her food science internship this summer.

They joined the department in August 2020 to help expand the branding and marketing program. Bella and Kate have increased the Department’s presence on Twitter, Instagram, Facebook, and LinkedIn. This issue of Impact is also one of their products. The interns express their sincerest gratitude to **Bob Lenz**, who provided the funding to make this internship possible.

Have a story or information that you would like to see on the Department’s social media (Twitter, Facebook, LinkedIn, Instagram)? Contact the interns via email at: **higgins6@wisc.edu** or **iludwig@wisc.edu** or message the Department social media accounts!