**Phi Tau Sigma Newsletter  June 2022**

**News:**

**Phi Tau Sigma Networking Dinner: Please join us**

**When:**  Tuesday, July 12, 2022, 6:30 pm  
**Where:**  Italian Village Restaurant, 71 W. Monroe St., Chicago  
**Cost:**  $45 for Professional Members; $20 for Student Members; free for 2022 Phi Tau Sigma scholarship and award winners.  
**Deadline for early bird ticket purchase:** June 19, 2022  
**Deadline for late ticket purchase:** June 24, 2022 (a late fee of $10 will be added to each ticket)

Tickets are on sale now. You will be registered with your ticket purchase. You may also purchase a ticket for a guest. Go to the Phi Tau Sigma Store [http://phitausigma.org/store/](http://phitausigma.org/store/). Minimally indicate your name, and email address. Choose from professional or student tickets. If you have questions, contact the Executive Director at klkotula@msn.com.  
We look forward to seeing you in person.

**Save The Date: Student Research Lightning Talks – June 9**

The Student Relations Committee is hosting a virtual student research event to connect members around exciting research topics of our student members. **Please save the date for June 9th at 12pm PT/3pm ET.** In this Lightning Talk event, three students will have 8 minutes and one slide to communicate their research and results. This event is open to all Phi Tau Sigma members. Registration for the event can be found ([here](http://phitausigma.org/store/)). After registering, you will receive a confirmation email containing information about joining the Zoom meeting. Contact Claire Zoellner, Ph.D. ([cez23@cornell.edu](mailto:cez23@cornell.edu)) with questions or for more information.

*Integrated processing of brewer's spent grain into value-added protein feedstuff and biofuel. Yanhong He, Cornell University,* will introduce brewer's spent grain (BSG) – a major byproduct generated by the brewing industry containing 14-30% protein and 50-70% of fiber that is predominantly used as low-value cattle feed or buried in landfills, leading to economic loss and environmental problems – and how she developed a novel integrated process to convert it into a value-added protein-rich feedstuff and biofuel.
Atmospheric cold plasma inactivation of Escherichia coli in cloudy apple juice. Emine Ozen, University of Georgia, will present her investigation into the proper time and gas compositions needed to achieve safe and quality cloudy apple juice by understanding the atmospheric cold plasma inactivation of E. coli. A greater amount of juice was used in this study than in previous studies to facilitate the practicality of cold plasma applications for juice safety and future scaling of the system for industry applications.

Adsorptive modification of cellulose nanocrystals (CNC) for Pickering stabilization. Avinash Patel, PhD, University of Maine (now at Climax Foods), will provide an overview of his investigation into the effect of pH, storage period and dilution by water on the stability of created Pickering emulsions and how Pickering stabilization capacity of CNC was enhanced by tailoring its hydrophobicity via Lauric acid adsorption.

Paid internship opportunity at the USDA-ARS:

The US Department of Agriculture’s Environmental Microbial and Food Safety Laboratory located in Beltsville, Maryland has numerous paid internship opportunities available for the summer of 2022 and beyond.

Research objectives may include but not limited to characterizing protozoan parasites and assess their transmission, characterizing pathogenic enteric bacteria in the environment, investigating the transport of pathogens from manure/feces via water and animal/insect vectors, assessing the introduction, dissemination, persistence and survival of saprophytic vs. pathogenic enteric bacteria during growth, harvest, postharvest handling and processing of fresh fruits and produce, developing rapid and sensitive methods for the identification of specific food-borne pathogens as well as rapid nondestructive methods for the detection of biological and chemical contaminants on fresh fruits and produce and on food processing surfaces etc.

You can find details and submit application via: https://www.zintellect.com/Opportunity/Details/USDA-ARS-2022-0193

Upcoming Member Presentations:

Presentations at the Reciprocal Meat Conference of the AMSA:

- Keynote Presentation: "How Culture and Talent Impact the Work Place, With a Focus on Labor Retention, and, Influence Positive and Productive Change”
Speakers - Craig Bacon, Ph.D., Simmons Foods; Keith Belk, Ph.D., Colorado State University; Molly McAdams, Ph.D., Texas Beef Council and Kay Stinson, Seaboard Foods

Availability: Tuesday June 14, 8:30-9:30am, and virtually
Sponsored by American Foods Group

- "Oxidation and Muscle Protein Functionality: An Evolutionary Global Perspective.“ Youling Xiong, Ph.D., University Research Professor at the University of Kentucky

Description: Protein oxidation is a long-neglected phenomenon but is now recognized to occur readily and ubiquitously in postmortem muscle and meat products. Since the beginning of the 1990s, systematically designed studies with robust analytical tools have led to the understanding that oxidatively modified muscle proteins in the presence of reactive oxygen species generated in meat processing have significantly changed gelling, emulsifying, and water-binding properties. Modulating oxidative processes using processing and ingredient strategies makes it possible to mitigate undesirable effects and promote the functionality associated with protein oxidation.

Availability: The oral presentation will be part of a symposium entitled “Oxidation of Muscle Proteins” Monday, June 13, 10:30am-12:30pm.
Sponsored by Texas Tech University

- Reciprocation Session: “Strengthening the Position of Meat Science as a Scientific Discipline”

Speakers: Mohammad Koohmaraie, Ph.D., IEH Laboratories; Russell Cross, Ph.D., Texas A&M University; Deb Hamernik, Ph.D., National Institute of Food and Agriculture; Kevin Meyers, Ph.D., Hormel Foods Corporation; David Gerrard, Ph.D., Virginia Tech University; and Rod Polkinghorne, Birkenwood Pty Ltd
Moderator: Mohammad Koohmaraie, Ph.D., IEH Laboratories
(Working/panel session)

Availability: Tuesday 2:00-3:00pm
Sponsored by Corbion

- Keynote Presentation – AMSA 75th Celebration of Our History
  - “Meat Science! How Far We Have Come!” Russell Cross, Ph.D., Texas A&M University
  - “RMC Comes of Age” Rhonda Miller, Ph.D., Texas A&M University
  - “Importance of RMC and the Impact on Industry – Really Meaty Collaborations” Scott Eilert, Ph.D., Cargill

Availability: Wednesday June 15, 8:30-9:30am, and virtually
Sponsored by JBS USA Food Company

Oral sessions of Dennis Cladis, Ph.D. for the IFT meeting:

- "Polyphenol safety: Current evidence, challenges, and opportunities"
  Dennis Cladis, Ph.D., University of Minnesota.

Description: "Dietary polyphenols may have beneficial effects on human health, but there is a lack of data regarding the safety of high doses of polyphenols. This session
will explore the current evidence for polyphenol toxicity, making the case that safety is key in establishing dietary guidelines for polyphenols."

Availability: The session will be recorded prior to the event and available online as part of the hybrid format of IFT22.

• "Dietary Phosphorus and Chronic Kidney Disease (CKD): Opportunities for the Food Industry"
  Dennis Cladis, Ph.D., University of Minnesota.

Description: Chronic kidney disease (CKD) affects 10-15% of the population and is primarily treated by restricting dietary intakes of phosphorus, sodium, potassium, and protein, though there are very few food products meeting these criteria. This session will discuss the importance of restricting these nutrients in CKD while also presenting opportunities for the food industry to create products tailored to individuals with CKD.

Availability: The session will be recorded prior to the event as part of the "Research promotion opportunity" for early career scientists.

• "Is the future of nutraceutical and functional foods natural?"
  Dennis Cladis, Ph.D. – Panelist

Availability: live Multi-Session Conversation. Details regarding session time, other panelists and moderators are not available at this time.

Poster for the International Association of Food Protection (IAFP) meeting:

• “Determination of antifouling capabilities of silane-treated wood”
  Authors: Zachariah Vice, B.S., William deFlorio, M.S., T. Matthew Taylor, Ph.D., and Mustafa Akbulut, Ph.D.
  Presenting Author: Z. Vice, B.S.  Senior Author: T.M. Taylor, Ph.D.

Description: Wood is commonly used in the production of fresh fruits and vegetables, especially by smaller commercial growers. Some research has shown that silanes can usefully confer antifouling properties to the surfaces of porous organic food-contact surfaces, including wood. The purpose of this study is to determine the antifouling capabilities of silane-treated wood for use during fresh produce harvest against bacterial foodborne pathogens. Pine and oak boards were cut into 4 cm² coupons. Coupons were then treated with 1% (w/w) of a fluorinated silane or left untreated. Coupons were then placed in a multi-well plate in order to measure pathogen attachment to wood surfaces after 1, 4, and 8 hours post-pathogen application. All coupons were inoculated with 100 µL of bacterial inoculum with a target of 9 Log CFU/mL either Salmonella enterica or Listeria monocytogenes. At each sampling time, each coupon was rinsed using sterile PBS and subsequently collected. The rinsate was serially diluted and recovered cells enumerated following 24-48 hours incubation at 35 °C. Silane treatment for both woods produced significant reductions in pathogen attachment compared to controls for both pathogens. After allowing to attach for 1 hour, silane-treated pine produced a mean Salmonella attachment reduction of 61.44% (95% CI: ±15.84%); L. monocytogenes attachment reduction (72.06%; 95% CI: ±14.01%) was consistent to that of Salmonella. Treated oak produced similar results
(Salmonella 50.02 ± 32.75% & Listeria 60.17 ± 16.90% [95% CI for both]). These data suggest silane-treatment of wood surfaces effectively helps to prevent pathogenic bacterial attachment to hard woods used in fruit and vegetable harvest.

**Availability:** IAFP Annual Meeting, Pittsburgh, PA, July 31-August 3

**Oral and Poster Presentations of Lauren Jackson, Ph.D. (FDA) at the IAFP meeting:**

- “The Codex process and recommendations for labeling of priority allergenic foods and ingredients derived from those foods”
  **Lauren S. Jackson, Ph.D., FDA**

  **Description:** "Food allergies have become a global public health priority in recent years. For packaged foods, undeclared allergens are the leading cause of product recalls in the U.S. The Codex Alimentarius Commission (CAC) first provided guidance on labeling of priority allergenic foods in 1999 recognizing 8 foods or food groups as the leading causes of food allergy globally. Subsequently, regulatory authorities in numerous countries have developed labeling regulations for packaged foods. However, global regulatory approaches are variable from one country to another. In 2020, the FAO and WHO organized an ad hoc Joint Expert Consultation on Risk Assessment of Food Allergens under the auspices of the Codex Committee on Food Labeling (CCFL). Over the period from 2020 – 2021, this expert panel convened on multiple occasions to develop recommendations for consideration by CCFL and CAC on the global priority list of allergenic foods, thresholds or reference doses, and labeling strategies using thresholds or reference doses. This presentation will provide a summary of the recommendations from the FAO/WHO consultation.

  **Availability:** The oral presentation will be part of a symposium entitled “Global Recommendations on Risk Assessment of Allergens from the Ad Hoc Joint FAO/WHO Expert Consultation”. The session will take place at the IAFP Meeting, Pittsburgh, PA, Tuesday, August 2, 2022: 10:45 AM - 12:15 PM

- “Variance estimations when measuring peanut and soy protein in discrete wheat flour samples”
  **Binaifer Bedford, M.S. (FDA), Girdhari M. Sharma, Ph.D. (FDA), Shizhen S. Wang, Ph.D. (FDA), Joshua Warren, B.S. (Illinois Institute of Technology), Sefat Khuda, Ph.D. (FDA), Rebecca Harris, M.S. (IIT), Sakshi Gandhi, M.S. (IIT), Paul Wehling, Ph.D. (ChemStats Consulting, LLC), Mark Arlinghaus, B.S. (General Mills), Thomas B. Whitaker, Ph.D. (NC State), Stuart J. Chirtel, Ph.D. (FDA) and Lauren S. Jackson, Ph.D. (FDA)**

  **Description:** Limited information exists on approaches for sampling grain that contains allergens due to agricultural commingling or cross-contact. The objectives of the work described in this poster were to 1) determine variance associated with quantitation of peanut protein (P) and soy protein (S) in wheat flour samples obtained by discrete sampling and 2) predict total variance (Vt) in P or S concentrations (mg/g) based on test portion size (Ns; grams) and number of aliquots analyzed (Na)

  **Availability:** Poster Session 3. IAFP Meeting, Pittsburgh, PA, Wednesday, August 3, 2022: 8:30 AM - 3:30 PM.
Program Committee: Opportunity to have your presentations publicized to the Phi Tau Sigma membership
(Contributed by Lauren Jackson, Ph.D., President Elect and Chair Program Committee)

Do you have a presentation, symposium or technical session at IFT, IAFP, ACS, the Reciprocal Meat Conference (RMC) of AMSA, or any other meeting or conference in 2022? We would like to advertise these events in upcoming Phi Tau Sigma Newsletters.

Please provide the following information:  Title of the presentation, Presenter (and terminal degree, and affiliation), Authors (with terminal degrees, and affiliations), Presentation Description/Summary, Meeting of which association; Date, Time, and Room number. Feel free to add any other pertinent information such as Moderator. You may not have the date, time, and room number yet, but send these as soon as you do to the email addresses below.

Please send the presentation/session information to Dr. Lauren Jackson (Lauren.Jackson@fda.hhs.gov) and copy Dr. Kathryn L. Kotula (klkotula@msn.com).

2022 Reciprocal Meat Conference Registration is Open

AMSA is excited to announce that registration for the 75th RMC is open! Please join us June 12-15, 2022, in Des Moines, IA, as we come together to celebrate the 75 years of meat science heritage! The AMSA 75th 2022 RMC is co-hosted by Iowa State University, Kemin Food Technologies, the National Pork Board, and Hormel Foods Corporation.

AMSA is excited to head back to Iowa for the 75th RMC, who also hosted the 25th RMC and the 50th RMC! “I am looking forward to bringing together meat scientists and industry professionals in Des Moines to highlight the latest scientific and technologic innovations in our field,” Dr. Anna Dilger, 2022 RMC Chair.

2022 RMC Technical Program Will Include:
- Automation in the Global Meat Industry
- Meat in the Diet-How do we help get it on the plate?
- Oxidation of Muscle Proteins
- Supply Chain - Untangling the Issues
- New Approaches to Reducing Salmonellosis Across the Food Industry
Modern Application of Classic Processed Meat Ingredients
A Deep Dive into US Pork Business
Pet Food Innovation for Pets and Pet Parents
Abstract and ePoster Sessions
And Over 25 Reciprocation Sessions

“The program we have planned spans the entire field of meat science, including basic muscle biology, automation in the meat industry, processed meats, food safety, and even a closer look at recent innovations in pet foods. There is truly something for everyone at RMC,” stated Dr. Dilger.

More information regarding the schedule of events, registrations fees, hotels, and more are posted online.

Click here for more AMSA 75th RMC registration information!

IFT FIRST 2022

IFT FIRST 2022 Annual Meeting and Expo will be held July 10-13, 2022, at McCormick Place, Chicago. A virtual option to attend will also be made available. More details on IFT FIRST 2022 can be found at https://www.iftevent.org/

Calendar:

Phi Tau Sigma Chapter Schedule:
October 25: Deadline to order Honor Cords and lapel pins to ensure delivery before Fall graduation dates
March 15: Deadline for membership nominations to ensure decisions from the Membership and Qualifications Committee before the Annual Meeting
April 1: Deadline to order Honor Cords and lapel pins to ensure delivery before Spring graduation dates
August 1: Deadline for Chapter annual reports

Reminder to all Chapters: In order to receive the Certificate of Merit or Certificate of Excellence, Chapters must submit their annual reports for evaluation by August 1. Please send your annual report to the current Chair of the Chapter Affairs Committee, Terri Boylston, Ph.D., (tboylsto@iastate.edu), with a copy to Dr. Kathryn L. Kotula (klkotula@msn.com).
->Phi Tau Sigma Scholarship and Awards Schedule:
   November 30: Deadline to submit nominations to the Awards Committee for the
                Dr. Daryl B. and Mrs. Dawn L. Lund Student International Scholarship.
   February 1:   Deadline to submit nominations to the Awards Committee for the
                Phi Tau Sigma Special Recognition Award, the Phi Tau Sigma Student
                Achievement Scholarship, the Dr. Gideon “Guy” Livingston
                Scholarship, the Phi Tau Sigma Founders’ Scholarship, and the Food
                Regulation Scholarship.
   April 1:    Deadline to submit nominations to the Awards Committee for the
               Phi Tau Sigma Outstanding Chapter of the Year Award.

Send completed nomination forms to both Awards Committee Chair Lili He, Ph.D.
(lilihe@foodsci.umass.edu) and Executive Director Kathryn L. Kotula, Ph.D.
(klkotula@msn.com). (More information: http://www.phitausigma.org/awards/)

->Phi Tau Sigma – AMSA ‘Research with Impact’ Scholarship Schedule:
   April 19:    Deadline to submit nominations for the Phi Tau Sigma – AMSA
                Research with Impact Scholarship.

Send completed nomination forms to Executive Director Kathryn L. Kotula, Ph.D.
(klkotula@msn.com), and the AMSA Youth Programs Manager
(scholarships@meatscience.org). (More information: http://www.phitausigma.org/awards/)

->January 14: Deadline to submit Nominations for the Dr. Carl R. Fellers Award,
               and other IFT Achievement Awards.
               (More information: https://www.ift.org/community/awards-and-recognition/achievement-awards)

->Election schedule:
   December 15: Nominations due to Nomination and Election Committee
               (Liz Boyle, Ph.D., Chair, lboyle@ksu.edu)
   January 2:   Nominations and Elections Committee convenes
   January 21:  Deadline for Nomination and Elections Committee to submit slate of
                candidates to President
   February 5:  Last date on which nominations by petition may be submitted
   March 2:     List of candidates will be emailed to the Members for balloting
   March 30:    Deadline for casting ballots
   April 8:     Deadline for tabulation of ballots
   May:         Newly elected individuals announced to the Membership in the May
               Phi Tau Sigma Newsletter

->June 12-15, 2022 - Reciprocal Meat Conference of the AMSA, Des Moines, Iowa

->Phi Tau Sigma Annual Meetings and Events: 2022
   June 19:   Deadline for early bird registration for the Phi Tau Sigma Networking
              Dinner
   June 24:   Deadline for late registration for the Phi Tau Sigma Networking Dinner
   July 7:    Annual Business Meeting and Awards Ceremony (virtual)
   July 12:   Phi Tau Sigma Networking Dinner 6:30pm
              Italian Village Restaurant, 71 W. Monroe St., Chicago

->July 10-13, 2022, Institute of Food Technologists Annual Meeting
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**Student Research Synopsis: Using spectroscopy-based machine learning technique to predict edamame optimal harvest time based on physical and chemical properties**

Contributed by Dajun Yu, Ph.D. candidate under the direction of Prof. Haibo Huang, Ph.D., Department of Food Science & Technology, Virginia Tech


**Introduction** The edamame [*Glycine max* (L.) Merr.] harvest window is narrow but crucial for optimal quality [1]. Harvesting outside of the optimal harvest window can potentially jeopardize its marketability. Current methods for detecting the edamame optimal harvest time rely on experienced edamame growers’ ability to determine these changes visually, by taste, or by touch. These methods pose a major obstacle for relatively new or inexperienced edamame growers and resulting in significant economic losses. As a result, more consistent and standardized determination approaches are desired. Spectroscopic techniques have recently been utilized to determine the optimal time to harvest cherry tomatoes [2], strawberries [3], and apples [4]. Meanwhile, advances in machine learning (ML) techniques allow for the analysis of complicated spectroscopic datasets and the provision of accurate and reliable calibration [5]. To our best knowledge, no literature has reported the application of spectroscopic-based machine learning to identify the optimal harvest time of edamame.

**Purpose** The objective of this study is to 1) investigate the changes of physical and chemical properties of edamame over bean development; 2) determine the edamame optimal harvest time using spectroscopy-based ML technique.

**Methods** Edamame was harvested at three growth stages: R5 (beginning seed), R6 (full seed), and R7 (beginning maturity) and then analyzed for their physical and chemical properties. The edamame samples were classified as 3 categories: ‘early’, ‘ready,’ and ‘late’ based on their properties. A portable spectrophotometer was used to measure the spectral reflectance of pods between 360 and 740 nm. Random forest (RF) classifiers were trained to classify each spectrum into one of the three (early, ready or late) or two classes (e.g. early vs ready). The dataset was split 80:20 into training and testing datasets. 10-fold cross-validation was applied to the training data. This process was repeated 100 times with the mean accuracy calculated over these repetitions. The model performance was measured by classifier accuracy and was compared based on cross-validation results.
Results Our results showed that pod thickness, bean weight and pod weight peaked at growth stage of R6 and remained stable afterward. Over the different growth stages, edamame becomes less green and more yellow. For chemical compositions, starch, sugar, glycine and alanine also peaked at R6 where the highest sweetness was found but then declined throughout the stage R7. When all factors were considered, stage R6 was the best time to harvest high-quality edamame. The spectrum reflectance based-ML approach (RF classifier) had a high accuracy of 0.95 when categorizing 'early' and 'late' samples, and 0.87 when classifying 'early' and 'ready' samples. When identifying 'late' and 'ready' samples, a lower accuracy of 0.68 was obtained. Overall, this study demonstrated that a machine learning approach based on the spectral reflectance of the edamame pods can be used to determine the optimal time to harvest edamame.

Significance This research is noteworthy and groundbreaking since it is the first to establish a spectroscopy-based technique for determining the optimal edamame harvest time, which is critical for producing consistent and high-quality edamame for the market.

References
Lifetime Member Tribute: Jacqueline Thach, B.S.
Aspiring Food Product Developer, California Polytechnic University, Pomona

Why did you become a Lifetime Member?
I became a Lifetime Member of the Phi Tau Sigma Honor Society because I knew I still wanted to stay connected with academia after achieving my bachelor’s. Although I have learned so much in my undergrad, there is still so much I can learn through working in the field and eventually back in academia to further my knowledge. Through Phi Tau Sigma, I can stay up-to-date with new trends and technologies related to food, gain new connections, and further grow in my leadership skills by supporting the food science community. How I started with food science was that I asked myself, “What is something that I don’t mind learning throughout my whole life?” and I said, “food.” Food Science brought me to a community that is supportive, explorative, creative, and fun. And I am eager to give back and enrich this community through my journey with food science.

Education:
B.S. Cal Poly Pomona (Food Science & Technology) (2022)
Minors in Culinology® and Plant-based Nutrition

Experience/Accomplishments:
Undergraduate Research Assistant, Cal Poly Pomona (2021 – Present)
Student Rep. Co-Chair, SCIFTS (2021 – Present)
Student Committee Member, RCA (2021 – Present)
Vice-President, Phi Tau Sigma Honors Society (Alpha Lamda Chapter) (2021 – Present)
Competitor of IFT MARS Product Development Competition (2021 – Present)
Competitor of SCIFTS Product Development Competition (2021- Present)
Cheese R&D Intern, Hilmar Cheese Co. (2021)
2nd place in the RCA 2021 Student Culinology® Competition (2020-21)
Competitor of RCA 2021 Food Evolution Competition (2020-21)
R&D Intern, Nam Gourmet (2020)

Areas of Expertise:
Research and Development (R&D) and Food Product Development.

Awards and Honors (selected list):

Personal: Family, Interests, Hobbies:
I come from a family of immigrants that fled to the United States during the Vietnam War. From there, my parents worked hard to not only establish their own education, but a future for their children. I am forever grateful to them, because not only have they given me the opportunity to have a college education, they supported me in a major that I really love; food science. My involvement with competing in product development competitions has played an integral role in my aspirations to pursue product development as a career and to
also becoming a patisserie chef after graduation in order to further enhance my capabilities. It made me realize my innate joy for creating unique products. In addition, this path has allowed me to balance my interests between food science and my hobbies in baking. Besides food, I love spending time with family, friends, and with the kitty fur babies we have at home. I also like participating in agricultural activities and water activities such as kayaking or white-water rafting.

Advice to university students and career food scientists and technologists
1. Don't be discouraged by your failures, embrace them and feel proud you didn't quit.
2. Respect the things your peers care about.
3. You can achieve anything you want, as long as you have grit.
4. Look at your mistakes as another chance to see something from a different perspective.
5. When you give to others, others will give back.
6. Surround yourself with people that bring you up.
7. Always look within to improve yourself.
8. Respect the boundaries of others, but also respect your own boundaries.
9. Don't be afraid to ask questions.
10. Love and believe in yourself.

Chapter News:

Outstanding Chapter of the Year Award – University of Minnesota

The University of Minnesota Chapter of Phi Tau Sigma has had an esteemed history of scholarly excellence, leadership, and community outreach in Food Science and Technology since its founding in 1981. This Phi Tau Sigma chapter has been especially noted for its many collaborative efforts within academia, with professionals in the food industry, and with the Minnesota Section of the Institute of Food Technologists.

One such highlighted collaborative program is their “Building a Science Bridge to Africa and Beyond Program” aiming to provide vital food science peer-reviewed journal and textbook materials to higher education food science programs in developing countries - with a particular emphasis on African countries. The University of Minnesota Chapter also provides mentorship to other universities that do not currently have their own active Phi Tau Sigma Chapters in an effort to help liaison students to re-invigorate their respective University’s recognition of excellence in Food Science. This has the goal of helping to bring to other students the great networking, leadership, and scholarly opportunities that Phi Tau Sigma membership offers. Additionally, a relatively new collaborative research competition called Speedy Science has been established and is growing to include universities such as NDSU, SDSU, UW-Madison, and ISU to give their students an opportunity for a fun platform to showcase their hard work and dedication to advancing research in food science and technology.

The University of Minnesota Chapter has also provided students and professionals alike with unique opportunities to learn more about current issues within the world of food science through both a webinar co-hosted with MN-IFT outlining “The Implications of a Dietary Shift to Plant-based Foods: Sustainability, Health, Technology and Regulatory Perspectives” by Dr. Rickey Yada; and a Q&A panel co-hosted with UMN’s Food Science and Nutrition club exploring career path opportunities with current graduate students and industry Phi Tau Sigma members. The Chapter wishes to continue these important events and student
achievement recognition through honoring these students’ dedication with organizational benefits such as scholarships, leadership and networking opportunities, and the prestige of our exclusive induction ceremonies where new members are bestowed with the Phi Tau Sigma pin, certificate, and Honor Cords by current Chapter officers. These ceremonies set apart these students, distinguishing them and giving them the recognition they deserve for all of their hard work and achievements in Food Science and Technology!

From left to right: Srinivas Janaswamy, Ph.D.; Mominul Hoque, B.S. (M.S. in progress); Mohamed Elfaruk, B.S. (Ph.D. in progress); Brigitta Yaputri, B.S. (M.S. in progress); Priyanshi Chaturvedi, B.Tech (M.S. in progress); Ratul Kalita, B.S. (M.S. in progress); Mary K. Schmidl, Ph.D.; Radhika Bharathi, B.Tech (Ph.D. in progress); Leslie Loehr, B.S. (M.S. in progress); Misen Luu, M.S.; Kumar Mallikarjunan, Ph.D.
Member News:

Phi Tau Sigma – AMSA ‘Research with Impact’ Scholarship

Jacob R. Tuell, B.S. is a M.P.H. student and Ph.D. Candidate under the guidance of Dr. Brad Kim in the Meat Science and Muscle Biology Laboratory at Purdue University. The research Jacob has conducted spans a broad range of pre- and post-harvest approaches to improve the quality, palatability, and oxidative stability of fresh meats across a variety of species. On the pre-harvest side, Jacob has conducted studies regarding how ruminal bypass amino acids would affect the quality and oxidative stability of aged beef, how photoperiod would influence broiler meat quality, and how in-utero heat stress would later affect the carcass and meat quality traits of pork. Regarding post-harvest interventions, Jacob helped to develop a novel method of beef tenderization in which boneless sub-primals could be tumbled in the absence of a brine solution and subsequently aged to promote tenderness development and palatability. These projects have received great interest in the meat science community. Highlighting this, Jacob recently received second place in the Processing/Technology/Food Safety division of the 2020 Reciprocal Meat Conference/International Congress of Meat Science and Technology (RMC/ICoMST) Ph.D. Research Competition and first place in the 2021 AMSA RMC Ph.D. Research Competition for his projects on fresh beef tumbling. The findings from this research have substantial implications for the meat industry to develop simple, natural, and cost-effective strategies to ensure consumers’ expectations for tenderness and palatability are met or exceeded.

At present, Jacob has published 7 manuscripts in peer-reviewed journals as a first author, as well as 8 abstracts and proceeding papers as a first author or co-author. Further, his research has been disseminated in industry-focused publications such as the National Provisioner and MeatingPlace. Within Purdue, Jacob’s research was featured in InnovatED magazine published by the Purdue Graduate School. In addition to his research activities, Jacob has completed extensive coursework, earning a total of 169 credit hours in his undergraduate degree and 117 credit hours in his graduate degrees, all while maintaining a 4.0 GPA. Regarding leadership activities, Jacob currently serves as the Senior Student Representative for the Institute of Food Technologists Muscle Foods Division, as well as being a member of the AMSA Youth Programs Committee. In 2021, he was awarded the Book Harmon Leadership Scholarship by the Department of Animal Sciences in recognition of his accomplishments. Jacob is expected to complete his Ph.D. degree in May 2022, after which he will begin as an Assistant Professor of Animal Science and Food Systems at Northwest Missouri State University. There, he plans to teach undergraduate courses in meat science, as well as develop a minor focused on food science and food systems.

The Phi Tau Sigma – AMSA Founders’ Scholarship is sponsored by Hawkins, Inc.
Dr. Carl R. Fellers Award Distinguished Career Award

Dr. Purnendu Vasavada is a Professor Emeritus of Food Science, University of Wisconsin-River Falls and Principal and managing member of the PCV & Associates, LLC. He is recognized internationally for his teaching, applied research, innovative training programs and active consultations in Food Science and Technology, especially, Food Safety and Microbiology and Rapid Methods and Automation in Food Microbiology. Since his retirement from the University of Wisconsin-River Falls, Dr. Vasavada accepted a 2 year assignment as the FDA-ORISE Fellow and was involved in the Food Safety Preventive Controls Alliance (FSPCA) – a broad-based public-private alliance consisting of key industry, academia and government stakeholders designed to help food industry comply with the Preventive Controls regulations for implementation of the Food Safety Modernization Act (FSMA) and served as the coordinator of the FSPCA.

Dr. Vasavada provides customized educational seminars, workshops and presentations on Food Safety Trends and Issues, Food Microbiology, Emerging Pathogens, HACCP and Prerequisite programs, Environmental Monitoring, Rapid Methods in Food Microbiology, Milk and Dairy Products Quality and Safety, and other contemporary food industry topics for a wide variety of audiences. He also provides consulting and assistance to the food industry in planning, development and management of special projects involving food safety and microbiology and food quality assurance. He is the author or co-author of over 100 publications including peer reviewed papers technical abstracts and book chapters. He is active in several scientific and professional organizations, including the International Association of Food Protection (IAFP), the Institute of Food Technologists (IFT), the Wisconsin Laboratory Association (WLA), and the Midwest Food Processors Association (MWPHA). He is a Fellow of the American Academy of Microbiology (1990), the IFT (2009) and the IAFP (2010), the International Academy of Food Science and Technology (2018) and has received the Educator award (IAMFES 1997), UW Extension’s Program Innovation Award (2010), the Harry Haverland Citation Award (IAFP 2011), the GMA Food Safety award (IAFP, 2012), Honorary Achievement award (FDA-CFSAN, 2012), the NSF Food Safety Leadership Award (2016), the WCMA's Babcock Award (2018) and the Chicago section IFT's Tanner Lecture Award (2018). More recently, he was named the recipient of the 2022 Macy Food Science and Technology award. Dr. Vasavada is serving on scientific advisory committee of various industry organizations and is a frequent contributor to food industry conferences and educational programs.

The Dr. Carl R. Fellers Award is sponsored by Phi Tau Sigma – The Honor Society of Food Science and Technology.
AAMS Distinguished Research Award Honoree

Dr. Surendranath Suman, a Lifetime Member of Phi Tau Sigma, has been named the 2022 AAMS Distinguished Research Award Recipient enthusiastically by the American Meat Science Association (AAMS). Dr. Suman will be honored during the 75th AAMS Reciprocal Meat Conference (RMC) awards presentation on June 14, 2022, in Des Moines, Iowa. The AAMS 75th 2022 RMC is co-hosted by Iowa State University, Kemin Food Technologies, the National Pork Board, and Hormel Foods Corporation.

“I am extremely fortunate to have outstanding students, extraordinary mentors, talented colleagues, and gifted collaborators, who profusely contributed to my success in research,” commented Dr. Surendranath Suman, Professor of Meat Science and University Research Professor at the University of Kentucky. “Serving as a mentor to numerous young meat scientists around the world and successfully fostering them to achieve their goals is the most satisfying and rewarding accomplishment in my career.”

The award was established in 1965 to recognize members with outstanding research contributions to the meat industry and is sponsored by Conagra Brands, Inc.

“The committee found the research work of Dr. Suman to be of high caliber and depth. The work is also applicable to the industry and should help produce better meat products,” said Dr. Shai Barbut, Committee Chair from the University of Guelph.

The American Meat Science Association is a broad-reaching organization of individuals that discovers, develops, and disseminates its collective meat science knowledge to provide leadership, education, and professional development.

[Modified from the RMC News section of the AAMS website: www.meatscience.org]

Dr. Yvonne Chan Masters named 2022 IAFP Harold Barnum Industry Award honoree

Dr. Yvonne Chan Masters is the recipient of the 2022 Harold Barnum Industry Award which honors her dedication and exceptional service to the International Association for Food Protection (IAFP), the public, and the food industry.

Dr. Masters is the Director of Food Safety and Quality Policy at John B. Sanfilippo & Son, Inc. in Elgin, Illinois. She leads strategic food safety initiatives including food safety culture, validations, environmental monitoring, and food defense. Previously, she worked at Kraft Foods in food safety and
quality roles. Dr. Masters received a B.S. in Microbiology and a M.S. in Food Science from the University of Illinois at Urbana-Champaign as well as a Ph.D. in Food Science from Cornell University in Ithaca, NY. She is a Lifetime Member of the Phi Tau Sigma – The Honor Society of Food Science and Technology.

The award will be formally accepted at the IAFP 2022 Annual Meeting on July 31 – August 3, 2022, in Pittsburgh, Pennsylvania.

How/Why I came to be in Food Science/Technology
(contributed by Matthew Taylor, Ph.D., Department of Animal Science, Texas A&M University)

Howdy! I am a Professor of Food Safety Microbiology in the Department of Animal Science at Texas A&M University here in College Station, TX. My wife and I moved here to Texas in 2007 after I completed a Ph.D. and brief Post-Doctoral appointment in the Department of Food Science and Technology (now Department of Food Science) at the University of Tennessee-Knoxville, in Knoxville, TN. My program here at Texas A&M University focuses on teaching both undergraduate and graduate students the microbiology of human foods, including microbiological safety, with a particular focus on animal-derived foods. I participate in a variety of workshops and training programs here delivering food safety information and training to food industry members, USDA-FSIS employees, and private citizens. My research program focuses much on the application of encapsulation technologies to decontaminate fresh and minimally processed foods like food crops (fruits, vegetables) as well as ground meats and poultry. I also conduct applied food safety research that seeks to help the U.S. poultry industry identify and prevent the transmission of enteric human bacterial pathogens to consumers in fresh poultry meat products. I joined Phi Tau Sigma in 1999 as an undergraduate in Food Science at my alma mater, NC State University (Go Pack!) in Raleigh, NC.

My path to food science is not so interesting, I think, but it’s mine. I am the son of a public school teacher (mother) and row crop farmer (father). Growing up on the farm definitely gave me a deep appreciation for where the food in my local grocery store actually came from. I knew from an early age it didn’t just appear on the shelf, mainly because I had a hand in working with my father to help grow, harvest, pack our farmed produce. Also, when I got old enough, I helped deliver harvested fruits/vegetables to distributors and grocers. This definitely inspired my interest in biology, and in high school my biology classes were my most favorite. Nevertheless, I almost never got into food science. When I was attending my public high school, NC State’s College of Textiles routinely sent students to recruit new textiles programs students from around the state. So, each year in high school I heard about textiles and the various applications and industries one could get involved in with a textiles degree, given its deep utilization of polymer science. I was fascinated to hear how textiles science was being applied to build the material that formed the heat shield on space shuttles to protect during re-entry, as well as a host of other things that textiles science could do for us. I began to get very interested in it as I heard about it each year, and by
senior year of high school I thought that’s what I wanted to do with a college degree and career.

However, during my senior year my father invited me to join him on a trip to Raleigh to attend the NCSU College of Agriculture and Life Science’s football tailgate pre-game event. He thought it would be good for me to go in order to see what other options could be there in case I became disenchanted with textiles. There I met Drs. Lynn Turner and Ken Swartzel of the Department of Food Science, and for the first time learned of this field of science and study. They spoke to me for nearly an hour, and at the end of that conversation they had effectively convinced me to change majors. I must confess, once I was admitted in textiles engineering and I saw the 4-year degree plan I was not really all that excited about physical chemistry, inorganic chemistry, thermodynamics, and all the other things more deeply connected to my love of living systems/biology, and not force me to try and figure out what statics are or why I needed to know about them. So, I changed and became a food science major.

Now as most food science majors go, I’m kind of different because I started in food science as a freshman, as compared to many of the students I teach or went through school with who found food science after coming to college. My faculty at NCSU and Tennessee guided and developed me in the basics of food science, gave me multiple opportunities to develop a passion for food safety microbiology through various lab positions, supported me in going after internships, graduate school, and now many are not just former mentors but some even are current research colleagues/collaborators. I’m indeed blessed to have my current job, what I do and who I get to do it with. I get to provide for my family in a really cool way, and I can only hope you will one day have as interesting a life as I’ve been granted!

We are pleased to have started this new series of articles in the Newsletter. Please share your story with us. Contact the Newsletter Editor at: klkotula@msn.com.

Dues Reminder:

Your dues status is listed in the cover email of this Newsletter. If you have not already paid your dues, Phi Tau Sigma Member dues are $40 per year, but students get a discount so their dues are $20 per year. Lifetime Membership is $400 (just once). Please access the Phi Tau Sigma Membership Dues Page at: http://www.phitausigma.org/membership-dues/. Proceed on to pay by PayPal. Be sure to include your address. Once you are successful with your PayPal payment, you will receive a receipt. If you do not receive a receipt, please try again.

Dues can also be paid by check payable to Phi Tau Sigma, (made with U.S. Funds and drawn on a U.S. Bank). (Do not send a money order.) Do not write the check to Kantha. Mail your check to: Kantha Shelke, Ph.D. (Do not address to Phi Tau Sigma.) 33 West Ontario, Suite 57F, Chicago, IL 60654. Send an email to Kantha to let her know to expect your check (kantha@corvusblue.net).

You are welcome at any time to give a donation to the Dr. Carl R. Fellers Award Fund, the Dr. Gideon “Guy” Livingston Scholarship Fund, Phi Tau Sigma Student Achievement Awards Fund, Phi Tau Sigma Special Recognition Award Fund, Dr. Daryl B. and Mrs. Dawn L. Lund
We also ask each Chapter to send a list of their current, and lapsed, members along with contact information to the Chapter Affairs Committee Chair, Terri Boylston, Ph.D. at: tboylsto@iastate.edu, to help ensure our records are accurate.

**Phi Tau Sigma Store:**

Phi Tau Sigma has an online store. Items featured include Honor Cords, Official Lapel Pins, Banners (podium and wall/table), Annual and Lifetime Member dues, printed Certificates of Membership, and an opportunity to make tax deductible donations to Phi Tau Sigma. The Society Store can be found by going to www.phitausigma.org/store.

**Support Phi Tau Sigma through AmazonSmile:**

If you shop at Amazon, please register Phi Tau Sigma as your charity through AmazonSmile (https://smile.amazon.com/). There is also a mobile app that one can access. Instructions for the mobile app can be found at: https://www.amazon.com/b?ie=UTF8&node=15576745011.

The AmazonSmile Foundation will then donate 0.5% of the purchase price of eligible products to Phi Tau Sigma. This may not sound like a lot, but it adds up. Be sure to enter Amazon through AmazonSmile every time you shop (https://smile.amazon.com/). Thank you!

**Editorial:**

Life presents us with Opportunities. It is up to us to embrace them. One of the most productive, and fun, opportunities is Networking.

As you read above, Phi Tau Sigma is hosting a Networking Dinner on Tuesday, July 12, 2022, 6:30 pm at the Italian Village Restaurant, 71 W. Monroe St., Chicago.

Come, visit with people you know, and meet others you do not yet know. Pave the way for a future success.

**About Phi Tau Sigma Communications:**

The Phi Tau Sigma Newsletter Committee includes: Kathryn Kotula, Ph.D., Editor-in-Chief, Chair (kikotula@msn.com); Claire Zoellner, Ph.D., Associate Editor (cez23@cornell.edu); Anthony W. Kotula, Ph.D.; Tianxi Yang, Ph.D., Research Co-Correspondent; Tiantian Lin, Ph.D., Research Co-Correspondent; Samruddhi Jadhav, M.S., Careers Correspondent; Kaavya.Rathnakumar, M.S., Chapter News Correspondent; Diane Schmitt, Ph.D., Member.
News Correspondent; Ashwini Wagh, Ph.D.; Ravi Tadapaneni, Ph.D.; Damla Dag, M.S. (Ph.D. student), Social media Co-Correspondent; Sonali Raghunath, M.S. (Ph.D. student), Social Media Co-Correspondent; Lily Yang, Ph.D., Social media Co-Correspondent.

Please be responsive to their inquiries for information for the Newsletter.

Documents:

Phi Tau Sigma Documents can be found on our website at: www.phitausigma.org.

Phi Tau Sigma Membership Nominations

Phi Tau Sigma Scholarships and Awards Forms
http://www.phitausigma.org/awards/

Phi Tau Sigma Constitution and By-Laws
http://www.phitausigma.org/constitution/
http://www.phitausigma.org/bylaws/

Phi Tau Sigma Mentorship Program
http://www.phitausigma.org/mentorship/

Sponsors, Donors, and Contributing Partners:

Phi Tau Sigma accepts contributions and has a variety of available sponsorship opportunities, as well as the General fund and Program fund.

Phi Tau Sigma is a non-profit 501(c)(3) charitable organization, so your contributions are tax deductible to the extent provided by U.S. law.

Contributions may come from, but are not limited to, Corporations, Companies, Universities, Government agencies, Associations, Consultants, and individuals.

Contributions are appreciated in any amount, and can be made by way of the Phi Tau Sigma website (http://phitausigma.org/store/ Scroll down to Donate and click the yellow Donate button, or by going directly to PayPal https://www.paypal.com/donate?hosted_button_id=QTA7NUHUEEPP2). Contributions by check (written from a US bank) can be made by sending to our Treasurer: Kantha Shelke, Ph.D., 33 West Ontario, Suite 57F, Chicago, IL 60654. Please write “Sponsorship”, “Donation”, “Contributing Partner”, etc. in the subject line. [A Sponsorship covers the cost of the honorarium and the administrative costs (PayPal, plaque, postage). A Donation covers only the cost of the honorarium. The Contributing Partners program is described below.]

Contributions of $500 or more will be recognized publicly by the Society at the annual meeting, on the Phi Tau Sigma website, in printed material associated with relevant programs and events, and in the monthly Phi Tau Sigma Newsletter. Endowments are also accepted.
Contribution opportunities are available for the Phi Tau Sigma Special Recognition Award, Phi Tau Sigma Student Achievement Award (up to 3 will be awarded), the Dr. Gideon “Guy” Livingston Scholarship Fund, the Phi Tau Sigma Founders’ Scholarship, the Dr. Daryl B. and Mrs. Dawn L. Lund Student International Scholarship Fund, and the Phi Tau Sigma Outstanding Chapter of the Year Award. Donations can be made towards the awards and scholarships listed above (on a 'first come' basis), as well as the Program fund (which includes the Phi Tau Sigma Awards Ceremony) and the General fund.

Phi Tau Sigma has a **Contributing Partners Program** with five levels of sponsorships as described below. The Contributing Partner receives all of the benefits in the previous levels, plus the addition of the benefit listed for that level. (http://www.phitasigma.org/sponsor/)

**Bronze** ($5,000)
- Company listing in the “Donors and Sponsors” section of the Phi Tau Sigma Newsletter.
- Recognition with company name on www.phitasigma.org.
- Prominent recognition at all major Phi Tau Sigma events.

**Silver** ($10,000)
- Bronze benefits.
- Posting your company’s job openings and internships in the Phi Tau Sigma Newsletter.

**Gold** ($15,000)
- Silver benefits.
- Acknowledgement of sponsorship and placement of corporate logo on plaque or scholarship/award memorabilia.

**Platinum** ($20,000)
- Gold benefits.
- A press release associated with significant contributions, distributed to allied professional and trade associations for circulation to their membership via their publications, e-news and/or listservs.
- Complimentary access to student resume database.

**Diamond** ($25,000)
- Platinum benefits.
- Prominent multi-year listing on the Phi Tau Sigma website as a sponsor of an Endowed Program.

Some corporations will match individual contributions of their employees, so check with your company about matching funds.

For more information contact the Treasurer, Kantha Shelke, Ph.D. (kantha@corvusblue.net), or the Executive Director, Kathryn L. Kotula, Ph.D. (klikotula@msn.com). Please write “Contribution” in the subject line.

**2021-2022 Contributing Partners:**

**Hawkins, Inc.** is a progressive concern that manufactures and distributes specialty chemicals and provides functional solutions for a wide variety of industries. The Food Ingredients Group is a leading
manufacturer of innovative pathogen control technologies and ingredients for the food
industry. The formation of Ingredient Works, an entity conceived to capitalize on expertise
in functional ingredient applications, food industry knowledge, technical service, and an
extensive product portfolio, is focused on the comprehensive science of shelf-life, providing
customized solutions to both the common and the highly complex issues faced every day by
food manufacturers. The ultimate goal for the Hawkins Food Ingredient Group is to re-define
the concept of shelf life and become a complete solution provider to the food industry.
(Contribution to sponsor the Phi Tau Sigma Founders’ Scholarship, and to sponsor the new
Phi Tau Sigma – AMSA Research with Impact Scholarship and its endowment.) **Hawkins,
Inc. is a Silver level Contributing Partner.**

**Dr. Daryl and Mrs. Dawn Lund.** Dr. Lund is past President of Phi Tau Sigma, Lifetime
Member, past Treasurer, current Assistant Treasurer, and an Emeritus Professor, University
of Wisconsin-Madison. (Contribution to endow the Dr. Daryl B. and Mrs. Dawn L. Lund
Student International Travel Scholarship.) **The Lunds are a Platinum level Contributing
Partner.**

**Catherine Adams Hutt, Ph.D., RD** and **Peter Barton Hutt, LL.B., LL.M.,** Phi Tau Sigma
Lifetime Members. Catherine is a food safety and regulatory consultant and expert witness
with RdR Solutions, and Peter is an attorney with Covington and Burling. Both are IFT
Fellows. (Contribution for the Catherine Adams Hutt, Ph.D., R.D. and Peter Barton Hutt,
LL.B., LL.M. Food Regulation Scholarship)** **The Hutts are a Platinum level Contributing
Partner.**

**2021-2022 Sponsors and Donors:**

**Dr. Fergus Clydesdale,** a Lifetime Member of Phi Tau Sigma, is the Distinguished
Professor and Director of the UMass Food Science Policy Alliance, University of
Massachusetts Amherst and a member of Phi Tau Sigma since the 1960’s. (Donation to the
General Fund)

The **American Meat Science Association (AMSA)** works
to cultivate a global community of professionals and
students to discover, apply and communicate meat
science and technology. An independent, objective, and
credible voice for meat science and technology, AMSA is
an organization recognized for its unmatched competence and commitment to attracting
and developing meat industry leaders. We are an association that encourages our members' active participation and engagement, welcoming collaborative relationships with other groups and organizations.

**Anthony W. Kotula, Ph.D.,** a Lifetime Member of Phi Tau Sigma, retired in 1992 as a
Supervisory Food Technologist after 38 years of service at the Agricultural Research Service,
USDA; 25 years of which were as the Leader of the Meat Science Research Laboratory.
(Donation towards the endowment for the Phi Tau Sigma-AMSA ‘Research with Impact’
Scholarship)

**Anonymous** donation towards the endowment for the Phi Tau Sigma – AMSA ‘Research
with Impact’ Scholarship.
Dr. Rakesh K. Singh is a Past President of Phi Tau Sigma, a Lifetime Member; and is a Professor in the Department of Food Science & Technology at the University of Georgia, where he was department head from 2001 to 2020. He is also a Fellow of IFT, Fellow of IAFoST, Fellow of National Academy of Agricultural Sciences of India, and Editor-in-Chief of LWT – Food Science and Technology. (Sponsorship of a Phi Tau Sigma Student Achievement Scholarship.)

William Benjy Mikel, Ph.D., a Phi Tau Sigma past President and a longtime Lifetime Member. (Recurring donation towards the endowment for the Phi Tau Sigma-AMSA ‘Research with Impact’ Scholarship)

Kalsec® is the leading global producer of natural spice and herb flavor extracts, natural colors, natural food protection solutions, and advanced hop products for the food and beverage industry. Our mission is to capture the best nature has to offer, allowing us to provide creative solutions to those who seek safer, healthier, more flavorful and more attractive foods, beverages and functional ingredients. Operating for more than 60 years as a family-owned company, Kalsec now covers over 70 countries, with headquarters in Kalamazoo, Michigan, and with facilities in the United States, Europe and Asia. For more information, visit www.kalsec.com. (Sponsorship of the Dr. Daryl B. and Mrs. Dawn L. Lund Student International Travel Scholarship.)

Peter M Salmon, M.S., MBA, a Lifetime Member of Phi Tau Sigma, is the Founder of International Food Network, Inc., currently retired. (Sponsorship of a Phi Tau Sigma Student Achievement Scholarship.)

Dr. Mary K. Schmidl is a Past President of the Institute of Food Technologists (IFT), a Lifetime Member and a past President of Phi Tau Sigma, the Past President of the International Union of Food Science and Technology (IUFoST), and Adjunct Professor, Department of Food Science and Nutrition, University of Minnesota.

Dr. Theodore P. Labuza is a Lifetime Member of Phi Tau Sigma, a Past President of the Institute of Food Technologists (IFT) and an Emeritus Morse Alumni Distinguished Teaching Professor of Food Science and Engineering, Department of Food Science and Nutrition, University of Minnesota.

Dr. Claire Zoellner, Food Safety Scientist at iFoodDS, Associate Newsletter Editor, past Phi Tau Sigma Director, and Past Chair of ad hoc Student Relations Committee. (Donation towards a Phi Tau Sigma Achievement Scholarship)

Dr. Rodrigo Tarté, a Lifetime Member of Phi Tau Sigma, and President of Phi Tau Sigma, is an Assistant Professor of Animal Science and of Food Science & Human Nutrition at Iowa State University, and President and President-Elect of Phi Tau Sigma. (Donation towards the endowment for the Phi Tau Sigma – AMSA ‘Research with Impact’ Scholarship.)

Robert Cassens, Ph.D., Professor Emeritus, University of Wisconsin, and long-time member of AMSA; and Martha Cassens, M.S., a long-time member of AMSA, a Lifetime Member and Director of Phi Tau Sigma, and Vice President of Product Innovation, Development & Quality at ACH Food Co. Inc. (Donation in honor of Dr. Anthony Kotula towards the endowment for the Phi Tau Sigma – AMSA ‘Research with Impact’ Scholarship.)
Dr. John H. Litchfield, a Lifetime Member of Phi Tau Sigma, is an Adjunct Professor of Food Science and Technology at The Ohio State University and a member of Phi Tau Sigma since the 1970’s. (Donation to the General Fund).

Anonymous donation towards an Achievement Scholarship.