Rodrigo Tarté

Curriculum Vitae

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Rodrigo Tarté

Curriculum Vitae

Iowa State University
Department of Animal Science
215D Meats Laboratory, 914 Stange Rd.
Ames, IA 50011-1001

Tel.: (515) 294-8415
Fax: (515) 294-5066
E-mail: rtarte@iastate.edu
https://faculty.sites.iastate.edu/rtarte/

EDUCATION

Ph.D., Food Science and Technology, Meat Science
Iowa State University, Ames, 1996

M.S., Food Technology
Iowa State University, Ames, 1990

B.S., Food Technology and Science
Iowa State University, Ames, 1987

PROFESSIONAL EXPERIENCE

2015 – Present **Iowa State University, Ames, IA**
College of Agriculture and Life Sciences; Department of Animal Science
Associate Professor, Meat Science (2022 – Present)
Assistant Professor, Meat Science (2015 – 2022)
Appointment: 60% research, 35% teaching, 5% service
Courtesy appointment: Department of Food Science and Human Nutrition (2018 – Present)
Director of Certificate Studies, Meat Science (2018 – Present)

2012 – 2015 **John Morrell Food Group (Smithfield Foods), Lisle, IL**
Director, Research & Development

2011 – 2012 **Creta Farms USA, Oakbrook Terrace, IL**
Director, Research & Development

1999 – 2011 **Kraft Foods Inc., Madison, WI**
Sr. Associate Principal Scientist, Oscar Mayer Brand Value (2009–2011)
Senior Program Leader, Meat Science Research (2008–2009)
Program Leader, Meat Science Research (2005–2008)
Associate Principal Scientist, Meat Science Research (2004–2005)
Associate Principal Scientist, Oscar Mayer R&D (2004–2004)
Senior Scientist, Oscar Mayer R&D (1999–2004)

1996 – 1999 **Rica Rondo S.A., Cali, Colombia**
Director, Research & Development

1987 – 1995 **Iowa State University, Ames, IA**
Graduate Research Assistant, Departments of Food Technology and of Food Science and Human Nutrition

PROFESSIONAL CERTIFICATIONS

Certified Food Scientist (International Food Science Certification Commission)
Certification #1361; Expiration: 31 March 2023

SCIENTIFIC AND PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science (AAAS); since 2021
American Meat Science Association (AMSA); since 1989.
American Society of Animal Science (ASAS); since 2014.
Council for Agricultural Science and Technology (CAST); since 1991.
Institute of Food Technologists (IFT); since 1984.
Food Microbiology, Muscle Foods, Product Development and International Divisions.
Chicago Section; 2011–Present
Wisconsin Regional Section; 2000–2011
Iowa Regional Section; 2015–Present, 1984–1996.
International Association for Food Protection (IAFP); since 1987.

HONOR SOCIETIES

Phi Tau Sigma, The Honor Society of Food Science and Technology; inducted 2013.
Sigma Xi, The Scientific Research Honor Society; inducted 1992.
Gamma Sigma Delta, The Honor Society of Agriculture; inducted 1989.

HONORS AND AWARDS

2021 *Early Adviser Award*
College of Agriculture and Life Sciences, Iowa State University
To recognize CALS faculty or staff who have demonstrated outstanding performance in advising undergraduate students early in their professional careers.

2014 *Alumni Impact Award*
Department of Food Science and Human Nutrition, Iowa State University
For contributions and leadership to the food industry.

2013 *Meat Processing Award*
American Meat Science Association
In recognition of outstanding achievement to the meat processing industry.

2010 Cold Cuts *Impact* Award
Kraft Foods, Inc. / Oscar Mayer

2009 *Li'l Oscar* Award
Kraft Foods, Inc. / Oscar Mayer

2009 *ABCD (Above and Beyond the Call of Duty)* Award
Kraft Foods, Inc.
In recognition of extraordinary efforts and achievement.

2008 Special Recognition Award
IFT Muscle Foods Division
For outstanding leadership, vision and passion.

2006 *ABCD (Above and Beyond the Call of Duty)* Award
Kraft Foods, Inc.
In recognition of extraordinary efforts and achievement.

2004 *Innovation Excellence* Award
Kraft Foods, Inc. / Oscar Mayer

2004 *ABCD (Above and Beyond the Call of Duty)* Award
Kraft Foods, Inc.
In recognition of extraordinary efforts and achievement.

2002 Cold Cuts *Impact* Award
Kraft Foods, Inc. / Oscar Mayer

1994 Meat Science/Food Science Outstanding Graduate Student Scholarship Award
Institute of Food Technologists, Iowa Section
For academic achievement and extracurricular activities in the field of meat science.

PUBLICATIONS

Refereed Journal Articles

(* denotes senior/corresponding author publications)

Since joining Iowa State University:

*17. Kibler ND, Acevedo NC, Cho K, Zuber-McQuillen EA, Carvajal YB, **Tarté R**. 2022. Novel biphasic gels can mimic and replace animal fat in fully-cooked coarse-ground sausage. Meat Sci. 194:108984. https://doi.org/10.1016/j.meatsci.2022.108984.

16. Cruzen SM, Cetin-Karaca H, **Tarté R**, Sebranek JG, Dickson JS. 2022. Survival of *Clostridium perfringens*, *Staphylococcus aureus*, *Listeria monocytogenes* and *Salmonella enterica* in alternatively cured ham during cooking and process deviations. LWT-Food Sci Technol. 163:113347. https://doi.org/10.1016/j.lwt.2022.113347.

15. Cruzen SM, Cetin-Karaca H, **Tarté R**, Sebranek JG, Dickson JS. 2022. Survival of *Clostridium perfringens*, *Staphylococcus aureus* and *Salmonella enterica* in alternatively cured bacon during cooking and process deviations. Meat Sci. 184:108687. https://doi.org/10.1016/j.meatsci.2021.108687.

14. Lee YS, **Tarté R**, Acevedo NC. 2021. Synergistic effects of starch nanoparticles and chitin nanofibers on the stability of oil-in-water Pickering emulsions. Food Chem. 363:130301. https://doi.org/10.1016/j.foodchem.2021.130301.

*13. Powell MJ, Prusa KJ, Sebranek JG, **Tarté R**. 2021. Effect of citrus fiber addition on quality attributes of fully-cooked deli-style turkey breast. Meat Musc Biol. 5(1):35, 1–8. https://doi.org/10.22175/mmb.12283.

*12. Miller DK, Yoder LE, Lonergan SM, Sebranek JG, **Tarté R**. 2021. Compositional

differences among types of mechanically separated chicken and chicken breast meat, and their influence on physicochemical attributes of frankfurter-type sausages. Meat Musc Biol. 5(1):33, 1–10. https://doi.org/10.22175/mmb.12294.

11. Lee YS, **Tarté R**, Acevedo NC. 2021. Curcumin encapsulation in Pickering emulsions co-stabilized by starch nanoparticles and chitin nanofibers. RSC Adv. 11:16275–16284. https://doi.org/10.1039/d1ra01622a.

*10. **Tarté R**, Paulus JS, Acevedo NC, Prusa KJ, Lee SL. 2020. High-oleic and conventional soybean oil oleogels structured with rice bran wax as alternatives to pork fat in mechanically separated chicken-based bologna sausage. LWT - Food Sci Technol. 131:109659. https://doi.org/10.1016/j.lwt.2020.109659.

9. Ruther BL, Dickson JS, Prusa KJ, **Tarté R**, Sebranek JG. 2020. Effects of processing method and non-meat binding ingredients on batter stability, yield and texture of frankfurters. J Food Process Preserv. 44:14626. https://doi.org/10.1111/jfpp.14626.

8. Cropp MS, Dickson JS, **Tarté R**, Sebranek JG. 2020. Use of nitrite-embedded packaging film for color stability of alternatively-cured, fully cooked bologna. Meat Musc Biol. 4(1):1–17. https://doi.org/10.22175/mmb.10379.

*7. Miller DK, Acevedo NA, Lonergan SM, Sebranek JG, **Tarté R**. 2020. Rheological characteristics of mechanically separated chicken and chicken breast trim myofibril solutions during thermal gelation. Food Chem. 307:125557. https://doi.org/10.1016/j.foodchem.2019.125557.

*6. Powell MJ, Sebranek JG, Prusa KJ, **Tarté R**. 2019. Evaluation of citrus fiber as a natural replacer of sodium phosphate in alternatively-cured all-pork Bologna sausage. Meat Sci. 157:107883. https://doi.org/10.1016/j.meatsci.2019.107883.

*5. Wolfer TL, Acevedo NC, Prusa KJ, Sebranek JG, **Tarté R**. 2018. Replacement of pork fat in frankfurter-type sausages by soybean oil oleogels structured with rice bran wax. Meat Sci. 145:352–362. https://doi.org/10.1016/j.meatsci.2018.07.012.

4. Powell MJ, Yuan C, Dzikamunhenga RS, **Tarté R**, Huff-Lonergan E, Lonergan SM, O'Connor AM. 2017. A systematic review and meta-analysis of tenderness metrics in control groups used in comparative nutrition experiments. Trans Anim Sci. 1:261–273. https://doi.org/10.2527/tas2017.0031.

3. Usinger EL, Larson EM, Niebuhr SE, Fedler CA, Prusa KJ, Dickson JS, **Tarté R**, Sebranek JG. 2016. Can supplemental nitrate in cured meats be used as a means of increasing residual and dietary nitrate and subsequent potential for physiological nitric oxide without affecting product properties? Meat Sci. 121:324–332. https://doi.org/10.1016/j.meatsci.2016.06.022.

2. Myers MA, Sebranek JG, Dickson JS, Shaw AM, **Tarté R**, Adams KR, Niebuhr S. 2016. Implications of decreased nitrite concentrations on *Clostridium perfringens* outgrowth during cooling of ready-to-eat meats. J Food Prot. 79:153–156. https://doi.org/10.4315/0362-028X.JFP-15-301.

Prior to joining Iowa State University:

1. **Tarté R R**, Murano EA, Olson DG. 1996. Survival and injury of *Listeria monocytogenes*,

Listeria innocua and *Listeria ivanovii* in ground pork following electron beam irradiation. J Food Prot. 59:596–600. https://doi.org/10.4315/0362-028X-59.6.596.

Theses and Dissertations

2. **Tarté, R.** 1996. Sensitivity of *Listeria* to irradiation in raw ground meat, as affected by type of radiation, product temperature, packaging atmosphere, and recovery medium [dissertation]. [Ames, (IA)]: Iowa State University. UMI Dissertations Publishing No. 9635360. https://doi.org/10.31274/rtd-180813-10521.
1. **Tarte, R.** 1990. Development of a beef/corn snack model product by twin- and single-screw extrusion [master's thesis]. [Ames, (IA)]: Iowa State University. https://works.bepress.com/rodrigo_tarte/50/.

Books

1. **Tarté R**, editor. 2009. Ingredients in meat products: properties, functionality and applications. New York (NY): Springer Science + Business Media. 419 p. https://doi.org/10.1007/978-0-387-71327-4

Book Chapters

4. Sebranek JG, **Tarté R**, Zuber EA. 2022. Raw material composition analysis. In: Reference module in food science (to be assigned to: Dikeman M, editor. Encyclopedia of meat sciences, 3rd ed. Elsevier). https://doi.org/10.1016/B978-0-323-85125-1.00016-8.
3. **Tarté R.** 2011. Meat protein ingredients. In: Philips GO, Williams PA, editors. Handbook of food proteins. Cambridge (UK): Woodhead Publishing. p. 56–91. https://doi.org/10.1533/9780857093639.56.
2. **Tarté R.** 2009. Meat-derived protein ingredients. In: Tarté R, editor. Ingredients in meat products: properties, functionality and applications. New York (NY): Springer Science + Business Media. p. 145–171. https://doi.org/10.1007/978-0-387-71327-4_7.
1. **Tarté R**, Amundson CM. 2006. Protein interactions in muscle foods. In: Gaonkar AG, McPherson A, editors. Ingredient interactions: effects on food quality. 2nd ed. Boca Raton (FL): CRC Press. p. 195–282. https://doi.org/10.1201/9781420028133.

Technical Reports

7. **Tarté R**, Paulus JS, Acevedo NC, Prusa KJ, Lee SL. 2021. Replacement of pork fat in chicken-based bologna sausage with oleogels of high-oleic or conventional soybean oil and rice bran wax. Ames (IA): Iowa State University. Animal Industry Report 17(1):14442. https://doi.org/10.31274/air.11904.
6. Miller DK, Acevedo NA, Lonergan SM, Sebranek JG, **Tarté R**. 2019. Rheological behavior of chicken breast meat and mechanically separated chicken myofibril solutions during thermal gelation. Ames (IA): Iowa State University. 2019 Animal Industry Report AS 665. Paper No.: ASL-R3308. https://www.iastatedigitalpress.com/air/article/id/7096/.
5. Cropp MS, Dickson JS, **Tarté R**, Sebranek JG. 2019. Use of nitrite-embedded film for

extending the color stability and shelf life of alternatively-cured, fully cooked bologna. Ames (IA): Iowa State University. 2019 Animal Industry Report AS 665. Paper No.: ASL-R3307. https://www.iastatedigitalpress.com/air/article/id/7090/.

4. Wolfer TL, Acevedo NA, Prusa KJ, Sebranek JG, **Tarté R**. 2018. Potential of rice bran wax and soybean oil oleogels as pork fat replacements in frankfurter-type sausages. Ames (IA): Iowa State University. 2018 Animal Industry Report AS 664. Paper No.: ASL-R3205. doi:10.31274/ans_air-180814-357. https://lib.dr.iastate.edu/ans_air/vol664/iss1/3.

3. Powell MJ, Prusa KJ, Sebranek JG, **Tarté R**. 2018. Evaluation of citrus fiber as a natural alternative to sodium tripolyphosphate in alternatively-cured pork bologna. Ames (IA): Iowa State University. 2018 Animal Industry Report AS 664. Paper No.: ASL-R3204. doi: 10.31274/ans_air-180814-327. https://lib.dr.iastate.edu/ans_air/vol664/iss1/2.

2. Liang R, Sebranek JG, **Tarté R**. 2018. Depletion of nitrite from meat curing brines during refrigerated storage. Ames (IA): Iowa State University. 2018 Animal Industry Report AS 664. Paper No.: ASL-R3203. doi:10.31274/ans_air-180814-314. https://lib.dr.iastate.edu/ans_air/vol664/iss1/4.

1. **Tarté R R**, Murano EA, Olson DG. 1995. Survival and injury of selected isolates of *Listeria* in ground pork following electron beam irradiation or heating at 55°C. Ames (IA): Iowa State University. 1994 Swine Research Report. Paper No.: ASL-R1209. p. 191–194.

Trade Publications

3. Miller, DK, **Tarté R**. 2021. AMSA Exclusive: Compositional differences among types of mechanically separated chicken and their influence on physicochemical attributes of frankfurter-type sausages. Meatingplace.com. https://www.meatingplace.com/Industry/TechnicalArticles/Details/102149. [sign-in required]

2. **Tarté R**. 2018. Mejoramiento y preservación de color en productos cárnicos curados mediante el control de factores extrínsecos [Improvement and preservation of color in cured meat products by control of extrinsic factors]. CarneTec 25(3):42–44, 46–47. https://www.carnetec.com/Industry/TechnicalArticles/Details/81607. [sign-on required]

1. **Tarté R**. 2018. Mejoramiento y conservación de color en productos cárnicos curados mediante el uso de ingredientes [Improvement and preservation of color in cured meat products through the use of ingredients]. CarneTec 25(1):30–32, 34, 36. https://www.carnetec.com/Industry/TechnicalArticles/Details/78519. [sign-on required]

Extension/Outreach Publications

2019

1. "Alternative" protein sources. University of Missouri Extension (Fact Sheet N1316). Kansas State University Research and Extension (Fact Sheet MF3476). https://extension2.missouri.edu/n1316; https://bookstore.ksre.ksu.edu/pubs/MF3476.pdf.

CONFERENCE PROCEEDINGS AND PRESENTATIONS

Refereed Conference Proceedings Papers

4. **Tarté R**. 2021. Leveraging meat flavor understanding for product success. Meat Musc Biol. 5(3):7, 1–6. https://doi.org/10.22175/mmb.13045. 71st Reciprocal Meat Conference of the American Meat Science Association; 2021, Aug 15–18, Reno, NV [peer-reviewed invited paper].

3. **Tarté R**. 2018. Developing the developer: How to be RTE (ready-to-employ) on day one. Proceedings of the 71st Reciprocal Meat Conference; 2018 Jun 24–27; Kansas City, MO [invited oral presentation]. Champaign (IL): American Meat Science Association. p. 48–50. https://meatscience.org/docs/default-source/events-and-education/rmc/rmc18_proceeding-papers.pdf?sfvrsn=3f578cb3_0.

2. **Tarté R**. 2010. Estrategias tecnológicas para mejorar el valor nutricional de los productos cárnicos procesados [Technological strategies for improving the nutritional value of processed meat products]. In: Pérez-Gil Romo F, Huerta Leidenz N, Arellano Chávez S, editors. Proceedings of the International Forum "The Role of Red Meats in a Healthy Diet;" 2010 Oct 20; Mexico City [invited oral presentation]. Mexico City: Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán. p. 29–30.

1. **Tarté R R**, 1998. Preservación de alimentos por irradiación [Food preservation by irradiation]. Proceedings of 1st Congreso Internacional de Microbiología Industrial [International Congress of Industrial Microbiology]; 1998 May 6–8; Bogotá, Colombia [invited oral presentation]. Bogotá, Colombia: Pontificia Universidad Javeriana. p. 11–21.

Other Published Conference Papers, Presentations and Abstracts

11. Cho K, **Tarté R**, Acevedo NC. 2022. Characterization of the mechanical properties, freeze-thaw stability, and oxidative stability of edible, high-lipid rice bran wax-gelatin biphasic gels. J. Am Oil Chem Soc. 99(suppl. 1):61–62. https://doi.org/10.1002/aocs.12654. American Oil Chemists' Society Annual Meeting; 2022 May 3; Atlanta, GA [oral presentation]. https://www.doi.org/10.21748/UMBU8998.

10. Kibler ND, Acevedo NC, Cho K, Zuber EA, Carvajal YB, **Tarté R**. 2021. Total replacement of animal fat in coarse-ground pork sausages by novel biphasic gels containing high-oleic soybean oil. Meat Musc Biol. 6(2):13203. https://doi.org/10.22175/mmb.13203. 74th Reciprocal Meat Conference; 2021 Aug 15–18; Reno, NV [poster].

    One of 2 (of 140) accepted abstracts selected as *RMC Chair Selected Abstract* and featured in a separate conference session.

9. Kibler ND, Acevedo NA, **Tarté R**. 2021. Structuring bigels as an alternative to animal fat in coarse ground meat products. J. Am Oil Chem Soc. 98(suppl. 1):68. https://doi.org/10.1002/aocs.12529. American Oil Chemists' Society Annual Meeting; 2021 May 6; online [oral presentation]. https://doi.org/10.21748/am21.355.

8. Paulus JS, Acevedo NC, Sebranek JG, Prusa KJ, Dickson JS, **Tarté R**. 2019. Utilization of conventional and high oleic soybean oil oleogels structured with rice bran wax to replace pork fat in mechanically separated chicken-based bologna sausage. Meat Musc Biol.

3(2):53. https//doi.org/10.22175/mmb2019.0053. 72nd Reciprocal Meat Conference; 2019 Jun 23–26; Fort Collins/Loveland, CO [poster].

7. Cropp MS, Dickson JS, **Tarté R**, Sebranek JG. 2018. The potential role of nitrite-embedded film technology in extending the color stability and shelf life of a cured, cooked meat product. Meat Musc Biol. 2(2):67. https://doi.org/10.221751/rmc2018.057. 71st Reciprocal Meat Conference; 2018 Jun 24–27; Kansas City, MO [poster].

6. Miller DK, Yoder LE, Lonergan SM, Acevedo NC, Sebranek JG, **Tarté R**. 2018. Processing characteristics and rheological properties of mechanically separated chicken and chicken breast meat. Meat Musc Biol. 2(2):59. https://doi.org/10.221751/rmc2018.051. 71st Reciprocal Meat Conference; 2018 Jun 24–27; Kansas City, MO [poster].

   Awarded first place in Master's Research ePoster Competition.

5. Powell MJ, Prusa KJ, Sebranek JG, **Tarté R**. 2017. Evaluation of citrus fiber as a natural alternative to sodium tripolyphosphate in alternatively cured bologna. Meat Musc Biol. 1(3):38. https://doi.org/10.221751/rmc2017.042. 70th Reciprocal Meat Conference; 2017 Jun 18–21; College Station, TX [poster].

4. Wolfer TL, Acevedo NC, Prusa KJ, Sebranek JG, **Tarté R**. 2017. Potential for rice bran wax and soybean oil oleogels as a pork fat replacement in frankfurters. Meat Musc Biol. 1(3):45. https://doi.org/10.221751/rmc2017.035. 70th Reciprocal Meat Conference; 2017 Jun 18–21; College Station, TX [poster].

3. Wolfer TL, Acevedo NC, Prusa KJ, Sebranek JG, **Tarté R**. 2017. Potential of rice bran wax and soybean oil oleogels as pork fat replacements in frankfurter-type sausages. In: Troy D, McDonnell C, Hinds L, Kerry J, editors. Proceedings of the 63rd International Congress of Meat Science and Technology, 2017; Cork, Ireland [poster]. Wageningen, Netherlands: Wageningen Academic Publishers. p. 682–683.

2. Usinger EL, Larson EM, Niebuhr SE, Fedler CA, Prusa KJ, Dickson JS, **Tarté R**, Sebranek JG. 2017. Supplemental nitrate in cured meats as a means to potentially increase dietary nitric oxide. Meat Musc Biol. 1(2):30. https://doi.org/10.221751/rmc2016.029. 69th Reciprocal Meat Conference; 2016 Jun 19–22; San Angelo, TX [poster].

1. **Tarté R R**, Murano EA, Olson DG. 1995. Survival and injury of *Listeria monocytogenes*, *Listeria innocua* and *Listeria ivanovii* in ground pork following electron beam irradiation. In: Proceedings of the 41st International Congress of Meat Science and Technology, vol. 2; 1995 Aug 20–25; San Antonio, TX [poster]. Chicago (IL): American Meat Science Association. p. 270–271.

Other Conference Papers, Presentations and Abstracts

9. Stowater JA, Prusa KJ, Reever LM, **Tarté R**, Green DLC, Zuber-McQuillen EA, Johnson LG, Stalder KJ, Steadham EM, Huff-Lonergan EJ, Lonergan SM. 2022. Fresh pork loin lipid determination using CEM Oracle and Soxhlet methodology. 75th Reciprocal Meat Conference; 2022 Jun 12–15; Des Moines, IA [poster].

8. Stowater JA, Prusa KJ, Reever LM, Johnson LG, Stalder KJ, **Tarté R**, Huff-Lonergan EJ, Lonergan SM. 2022. Utility of pork quality and composition to predict sensory quality in

fresh pork loin chops. 75th Reciprocal Meat Conference; 2022 Jun 12–15; Des Moines, IA [poster].

7. Gregg CR, Koltes DA, **Tarté R**. 2020. Effect of freezing condition and wooden breast severity on cooked chicken quality. Abstract No. 294. Poultry Science Association Annual Meeting; 2020 Jul 20–22; online [oral presentation].
6. Lee YS, **Tarté R**, Acevedo NA. 2020. Synergistic effects of ChFs/SNPs on the stability of 10% o/w Pickering emulsions. American Oil Chemists' Society Annual Meeting; 2020 Jun 29–Jul 3; online [oral presentation].
5. Miller DK, Yoder LE, Acevedo NA, Lonergan SM, Sebranek JG, **Tarté R**. 2018. Processing Characteristics and Rheological Properties of Mechanically Separated Chicken and Chicken Breast Meat. 64th International Congress of Meat Science and Technology; 2018 Aug 12–17; Melbourne, Australia [poster]. http://icomst-proceedings.helsinki.fi/papers/2018_07_49.pdf.
4. Cropp MS, Dickson JS, **Tarté R**, Sebranek JG. 2018. The potential role of nitrite-embedded film technology in extending the color stability and shelf life of a cured, cooked meat product. 64th International Congress of Meat Science and Technology; 2018 Aug 12–17; Melbourne, Australia [poster]. http://icomst-proceedings.helsinki.fi/papers/2018_11_03.pdf.
3. **Tarté R**, Narciso C. 2016. Identificación y control de factores involucrados en la vida útil de los productos cárnicos procesados (Identification and control of factors involved in the shelf-life of processed meat products). 69th Reciprocal Meat Conference; 2016 Jun 19–22; San Angelo, TX [oral presentation, in Spanish]. https://meatscience.confex.com/amsa/RM16/webprogram/Session1067.html.
2. **Tarté R R**, Murano EA, Olson DG. 1994. Survival and injury of selected isolates of *Listeria* in ground pork following electron beam irradiation or heating at 55°C. 13th Annual Midwest Food Processing Conference; 1994 Oct 3–4; La Crosse, WI [poster].
1. **Tarte R**, Molins RA, Kazemzadeh M. 1989. Development of a beef/corn extruded snack model product. Abstract No. 284. Institute of Food Technologists Annual Meeting; 1989 June 25–29; Chicago, IL [poster].

PUBLICATION CITATION METRICS

(as of December 1, 2022)

Bibliographic database	Times cited	h-index	i10-index
Google Scholar	573	11	14
ResearchGate	313	8	7
Scopus	293	7	7
Semantic Scholar	411	9	8
Web of Science	174	6	4

ORCID iD: 0000-0002-5329-7827
Scopus Author ID: 56000258200

Web of Science Researcher ID: P-4098-2015

OTHER PRESENTATIONS

External Invited Presentations

Since joining Iowa State University

2022

39. *Meat Alternatives*. Council for Agricultural Science and Technology (CAST) Annual Meeting, Ames, IA, 2022 Oct 26.
38. *Updates on animal product alternatives (meat and milk): You make the call* (co-speaker with L. L. Timms). Think Tank on Animal Agriculture, Ames, IA; 2022 Mar 28.

2021

37. *Use of nonmeat ingredients to optimize quality and cost of meat products*. Webinar "Science and Innovation China – Overseas Intellectual Program Road Show – (veterinary medicine session), Tai'an." Chinese Association for Science and Technology and Shandong Agricultural University, Tai'an, China; 2021 Nov 16. [online]
36. *Fat reduction options for meat products* [delivered in Spanish: Opciones para reducción de sodio en productos cárnicos]. Webinar. U.S. Meat Export Federation; 2021 Nov 10. [online]
35. *Oil structuring as a strategy to modify the fatty acid profile of meat products* [delivered in Spanish: Estructuración de aceites como estrategia para modificar el perfil de ácidos grasos en productos cárnicos]. Asociación Mexicana de Ciencia y Tecnología de la Carne (AMEXITEC) [Mexican Association of Meat Science and Technology]. Virtual forum "New approaches in meat product development" (keynote talk); 2021 Oct 20. [online]
34. *Replacing animal fats in meat products using high oleic soybean oil*. Soy Nutrition Institute Meeting, Denver, CO; 2021 Sep 1. [online]
33. *Leveraging meat flavor understanding for product success*. 73rd Reciprocal Meat Conference, Reno, NV; 2021 Aug 16. Recording: https://meatscience.confex.com/amsa/RMC21/videogateway.cgi/id/1187?recordingid=1187.
32. *Natural ingredients in meat curing: history, application in meat products, and regulatory approval requirements in USA*. International webinar "Compostos vegetais como alternativas para a cura natural de produtos cárneos" ["Vegetable compounds for naturally cured meat products"]. Centro de Tecnologia de Carnes, Instituto de Tecnologia de Alimentos (ITAL) [Meat Technology Center, Food Technology Institute], Campinas, SP, Brazil; 2021 Jul 7. [online]
31. *Sodium reduction options for meat products* [delivered in Spanish: Opciones para reducción de sodio en productos cárnicos]. Webinar. U.S. Meat Export Federation; 2021 June 23. [online]
30. *Meat alternatives: what's the beef?* 100th National Block & Bridle Convention, Ames, IA; 2021 Apr 10.

2020

29. *The importance of correct labeling in meat products* [delivered in Spanish: La importancia del correcto etiquetado en los productos cárnicos]. Webinar for Central American meat importers (30 attendees). U.S. Meat Export Federation; 2020 Sep 30. [online]
28. *Use of conventional and alternative additives in meat production* [delivered in Spanish: Implicaciones del uso de aditivos convencionales y alternativos en la producción cárnica]. Webinar for Central American meat importers (30 attendees). U.S. Meat Export Federation; 2020 Sep 30. [online]
27. *Meat alternatives: primer and update.* Iowa Meat Processors Association Convention, Ames, IA; 2020 Feb 15.
26. *Meat alternatives*. State Line Cooperative (Burt, IA) Board of Directors Strategic Summit, Ames, IA; 2020 Jan 30.

2019

25. *Meat alternatives: fad or future?* Iowa Turkey Federation Winter Convention, West Des Moines, IA; 2019 Dec 11.
24. *Alternative proteins: present state and future outlook* [keynote]. National Institute for Animal Agriculture (NIAA) National Conference, Des Moines, IA; 2019 Apr 10.
23. *Cell-cultured meat: current status, future prospects* (co-speaker with J. Dickson, S. Sapp, J. Reecy). Think Tank on Animal Agriculture, Ames, IA; 2019 Mar 26.
22. *Guide to functional ingredients*. Education session "Functional Ingredients in Meat and Poultry Processing." International Production & Processing Expo (IPPE), Atlanta, GA; 2019 Feb 14. Sponsored by North American Meat Institute, Meat & Poultry Research & Education Foundation.

2018

21. *Developing the developer: How to be RTE (ready-to-employ) on day one*. 71st Reciprocal Meat Conference, Kansas City, MO; 2018 Jun 27.
20. *Emerging technologies to ensure food safety and quality* [delivered in Spanish: Tecnologías emergentes para asegurar la inocuidad y calidad de los alimentos]. 71st Reciprocal Meat Conference, Kansas City, MO; 2018 Jun 26.
19. *The importance of correct labeling in meat products* [delivered in Spanish: La importancia del correcto etiquetado en los productos cárnicos]. 6to. Foro Internacional de Alimentos Sanos [6th International Symposium on Healthy Foods], San Luis Potosí, S.L.P., Mexico; 2018 May 30.
18. *Implications of the use of conventional and alternative additives in meat production* [delivered in Spanish: Implicaciones del uso de aditivos convencionales y alternativos en la producción cárnica]. 6to. Foro Internacional de Alimentos Sanos [6th International Symposium on Healthy Foods], San Luis Potosí, S.L.P., Mexico; 2018 May 29.

2017

17. *Applied formulation approaches for food product development*. Webcast. Institute of Food Technologists, Muscle Foods Division; 2017 Aug 10. [online]

16. *Cured meat additives and alternatives*. Educational session "Wait! Where is clean label going?" School Nutrition Association (SNA) Annual National Conference, Atlanta, GA; 2017 Jul 9.
15. *New trends in non-meat ingredients* [delivered in Spanish: Nuevas tendencias en ingredientes no cárnicos]. Reciprocal Meat Conference, College Station, TX; 2017 Jun 20.
14. *Nutrition and quality in processed meats: Can they co-exist?* International Symposium on Food Nutrition and Health. Dalian Polytechnic University, Dalian, China; 2017 May 28.

2016

13. *Identification and control of factors involved in the shelf-life of processed meat products* [delivered in Spanish: Identificación y control de factores involucrados en la vida útil de los productos cárnicos procesados]. Reciprocal Meat Conference, San Angelo, TX; 2016 Jun 21.

2015

12. *Application of nonmeat proteins in meat products*. 2nd Seminário Internacional de Ciência, Tecnologia e Inovações para a Indústria de Carnes [2nd International Seminar on Science, Technology and Innovation for the Meat Industry]. Curitiba, PR, Brazil; 2015 Apr 29.
11. *Ingredients and additives in meat products*. 2nd Seminário Internacional de Ciência, Tecnologia e Inovações para a Indústria de Carnes [International Seminar on Science, Technology and Innovation for the Meat Industry]. Curitiba, PR, Brazil; 2015 Apr 29.
10. *Antimicrobial ingredients in meat products*. Workshop "Segurança de Produtos Cárneos Pasteurizados" ["Safety of Pasteurized Meat Products"]. Associação Brasileira de Proteína Animal [Brazilian Association of Animal Protein], São Paulo, SP, Brazil; 2015 Apr 28.

Prior to joining Iowa State University

9. *Formula optimization and LCF: Lessons from the meat industry*. 14th Surimi Industry Forum. Seafood Research and Education Center, Oregon State University, Astoria, OR; 2014 Apr 24.
8. *Formulation and reformulation of processed meat products*. Education session "Meat and Poultry Processing: A Global Perspective." International Meat Expo. Atlanta, GA; 2013 Jan 29.
7. *Technological strategies for sodium reduction in processed meat products*. 9th International Meat Industrialization Seminar. Chapecó, SC, Brazil; 2012 Sep 20.
6. *Technological strategies for improving the nutritional value of processed meat products* [delivered in Spanish: Estrategias tecnológicas para mejorar el valor nutricional de los productos cárnicos procesados]. International forum "The Role of Red Meats in a Healthy Diet." Mexico City; 2010 Oct 20.
5. *On being a scientist in the food industry: A few musings*. Graduate Seminar. Department of Food Science and Technology, University of Nebraska-Lincoln, Lincoln, NE; 2009 Oct 5.

4. Meat*ing your future*: Preparing for the challenges and opportunities of an industry career. Meeting of Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS), University of Wisconsin-Madison, Madison, WI; 2009 Feb 26.
3. Meat*ing your future*: Preparing for the challenges and opportunities of an industry career. Meat Your Future night. Department of Animal Science, Iowa State University, Ames, IA; 2008 Oct 20.
2. *Social responsibility and ethical considerations in the food industry*. "Technology Management" graduate course." Pontificia Universidad Javeriana, Cali, Colombia. 1998 Aug 31.
1. *Food preservation by irradiation* [delivered in Spanish: Preservación de alimentos por irradiación]. I International Congress of Industrial Microbiology. Pontificia Universidad Javeriana, Bogotá, Colombia; 1998 May 6.

Campus/Departmental Presentations

4. *Tailoring the lipid composition of meat products through oil structuring*. Animal Science Departmental Seminar. Iowa State University, Ames, IA; 2021 Apr 16.
3. *The changing label of processed meats: consumers, science and implications*. Iowa Swine Day. Iowa State University, Ames, IA; 2017 Jun 29.
2. *The changing label of processed meats: science, perceptions and implications*. Animal Science Departmental Seminar. Iowa State University, Ames, IA; 2017 Mar 10.
1. *Mathematical optimization of processed meat formulations*. Meat Science Seminar. Iowa State University, Ames, IA; 2016 Mar 22.

Presentations at Workshops and Short Courses

Since joining Iowa State University

2022

28. *Modification of the nutritional profile of processed meat products* [delivered in Spanish: Modificación del perfil nutricional de los products cárnicos procesados]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2022 Aug 17.
27. *Mathematical optimization of processed meat formulations* [delivered in Spanish: Optimización matemática de formulaciones de carnes procesadas]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2022 Aug 17.
26. *Ingredients and additives in meat products* [delivered in Spanish: Ingredientes y aditivos en productos cárnicos]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2022 Aug 16.

2020

25. *Simple labeling: Principles, applications and implications* [delivered in Spanish: Etiquetado simple: Principios, aplicaciones e implicaciones]. "Meat School en español" short course. Texas Tech University; 2020 Dec 4. [online]

24. *Ingredients and additives in meat products* [delivered in Spanish: Ingredientes y aditivos en productos cárnicos]. "Meat School en español" short course. Texas Tech University; 2020 Dec 2. [online]

2019

23. *Simple labeling: Principles, applications and implications* [delivered in Spanish: Etiquetado simple: Principios, aplicaciones e implicaciones]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2019 Jul 12.
22. *Modification of the nutritional profile of processed meat products* [delivered in Spanish: Modificación del perfil nutricional de los products cárnicos procesados]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2019 Jul 12.
21. *Ingredients and additives in meat products* [delivered in Spanish: Ingredientes y aditivos en productos cárnicos]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2019 Jul 11.
20. *Fresh pork quality* [delivered in Spanish: "Calidad de la carne de cerdo fresca]. Seminar for South American pork importers. U.S. Meat Export Federation (USMEF). Iowa State University, Ames, IA; 2019 May 16.

2018

19. *Clean label ingredients for food safety*. "Clean Label Product Development: Balancing Consumer, Regulatory, and Science" Short Course. Institute of Food Technologists. Chicago, IL; 2018 Jul 14.
18. *Simple labeling: Principles, applications and implications* [delivered in Spanish: Etiquetado simple: Principios, aplicaciones e implicaciones]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2018 Jun 15.
17. *Modification of the nutritional profile of processed meat products* [delivered in Spanish: Modificación del perfil nutricional de los products cárnicos procesados]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2018 Jun 15.
16. *Ingredients and additives in meat products* [delivered in Spanish: Ingredientes y aditivos en productos cárnicos]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2018 Jun 15.

2017

15. *Antimicrobial ingredients*. "Clean Label Product Innovation" Short Course. Institute of Food Technologists. Las Vegas, NV; 2017 Jun 24.
14. *Mathematical optimization of processed meat formulations* [delivered in Spanish: Optimización matemática de formulaciones de carnes procesadas]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2017 Jun 18.
13. *Modification of the nutritional profile of processed meat products* [delivered in Spanish: Modificación del perfil nutricional de los products cárnicos procesados]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2017 Jun 17.

12. *Ingredients and additives in meat products* [delivered in Spanish: Ingredientes y aditivos en productos cárnicos]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2017 Jun 17.

2016

11. *Composition, functionality and utilization of pork variety meats*. "Novel Processing – Pork Variety Meat" Workshop. National Pork Board. Iowa State University, Ames, IA; 2016 Aug 17.
10. *Nitrates/nitrites and preservative replacements in meat products*. "Clean Label Product Innovation" Short Course. Institute of Food Technologists. Chicago, IL; 2016 Jul 16.
9. *Principles of meat packaging* [delivered in Spanish: Principios de empaque de carnes]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2016 Jun 26.
8. *Mathematical optimization of processed meat formulations* [delivered in Spanish: Optimización matemática de formulaciones de carnes procesadas]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2016 Jun 26.
7. *Ingredients and additives in meat products* [delivered in Spanish: Ingredientes y aditivos en productos cárnicos]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2016 Jun 25.
6. *Alternatives for modifying the nutritional profile of processed meat products* [delivered in Spanish: Alternativas para modificar el perfil nutricional de los products cárnicos procesados]. "Meat School en español" short course. Texas Tech University, Lubbock, TX; 2016 Jun 23.

Prior to joining Iowa State University

5. *Product development*. Smithfield Foods Meat and Poultry Training Program; Iowa State University, Ames, IA; 2014 Sep 10.
4. *Product development*. Smithfield Foods Meat and Poultry Training Program. Iowa State University, Ames, IA; 2013 Sep 9.
3. *R&D and product development*. Oscar Mayer Basic Processed Meats Short Course. Kraft Foods Inc./Oscar Mayer: Madison, WI; 2011 Jan 6 (and numerous times since 2002).
2. *Principles of meat emulsion technolog*y. Emulsion and Foam Technology Short Course. Kraft Foods Inc., Glenview, IL; 2008 Feb.
1. *Principles of meat emulsion technology*. Emulsion and Foam Technology Short Course. Kraft Foods Inc., Glenview, IL; 2007 Jun.

ISU Outreach Presentations

2019

22. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 2. Ames, IA; 2019 Sep 23.
21. *Non-meat ingredients*. Smithfield Foods Meat & Poultry Training Program Level 2. Ames, IA; 2018 Sep 9.

20. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 1. Ames, IA; 2019 May 20.
19. *Basic Meat Science*. Smithfield Foods Maintenance & Engineering Training Program Level 1. Ames, IA; 2019 May 20.
18. *Non-meat ingredient*s. Smithfield Foods Meat & Poultry Training Program Level 1. Ames, IA; 2019 Apr 22.

2018

17. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 2. Ames, IA; 2018 Sep 24.
16. *Non-meat ingredients*. Smithfield Foods Meat & Poultry Training Program Level 2. Ames, IA; 2018 Sep 10.
15. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 1. Ames, IA; 2018 May 14.
14. *Non-meat ingredient*s. Smithfield Foods Meat & Poultry Training Program Level 1. Ames, IA; 2018 Apr 30.

2017

13. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 2. Ames, IA; 2018 Sep 25.
12. *Non-meat ingredients*. Smithfield Foods Meat & Poultry Training Program Level 2. Ames, IA; 2018 Sep 11.
11. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 1. Ames, IA; 2017 May 15.
10. *Non-meat ingredients*. Smithfield Foods Meat & Poultry Training Program Level 1. Ames, IA; 2017 May 1.
9. *Non-meat ingredients for dry and semi-dry sausage*. Dry and Semi-Dry Sausage Short Course. Ames, IA; 2017 Apr 4.

2016

8. *Non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 2. Ames, IA; 2016 Sep 26.
7. *Non-meat ingredients*. Smithfield Foods Meat & Poultry Training Program Level 2. Ames, IA; 2016 Sep 12.
6. *Basic meat science*. Smithfield Foods Maintenance & Engineering Training Program Level 1. Ames, IA; 2016 May 18.
5. *Non-meat ingredients*. Smithfield Foods Meat and Poultry Training Program Level 1. Ames, IA; 2016 Apr 4.

2015

4. *Non-meat ingredients in sausage products*. Basic Sausage Short Course. Ames, IA; 2015 Nov 10.

3. *Packaging strategies for meat and meat products*. Packaging Basics Seminar. Ames, IA.; 2015 Oct 19.
2. *Basic non-meat ingredients*. Smithfield Foods Maintenance & Engineering Training Program Level 1. Ames, IA; 2015 May 18.
1. *Non-meat ingredients*. Smithfield Foods Meat and Poultry Training Program Level 1. Ames, IA; 2015 Apr 2.

Technical Translations (English to Spanish)

Books:

Hoogenkamp, H. (1995). Proteína vegetal: Valor tecnológico en alimentos cárnicos, avícolas y vegetarianos [Vegetable protein: Technology value in meat, poultry, and vegetarian foods] (253 pp.). St. Louis, MO: Protein Technologies International, Inc. (Original work published 1992)

Papers and Articles**:**

Proceedings of the *V Cursillo Teórico/Práctico de Tecnología Cárnica* [V Short Course on the Theory and Practice of Meat Technology], Iowa State Univ., Ames, IA, 1994. Translated (English to Spanish) nine technical articles covering a wide range of meat processing-related topics.

GRANTS AND FELLOWSHIPS RECEIVED

	Investigators	Title and project number	Amount	Funding source	Year
5	**Tarté R**	Development and application of improved high-oleic soybean oil-containing biphasic gel systems as animal fat mimetics in coarse-ground meat and plant-based products. Proj. #2311-108-0201	$63,096	United Soybean Board	2022
4	Sebranek JG **Tarté R** Prusa KJ	Clean-label ingredients for fresh pork enhancement solutions. Proj. #21-101	$78,222	Iowa Pork Producers Association	2021
3	**Tarté R** Acevedo NC	High oleic and conventional soybean oil based bigels as an alternative to animal fat in coarse ground meat products. Proj. #2030-262-0451	$97,389	United Soybean Board	2019
2	**Tarté R** Acevedo NC	Evaluation of conventional and high oleic soybean oil oleogels utilized to improve the nutritional profile of meat products. Proj. #1930-362-0609	$23,025	United Soybean Board	2018
1	**Tarté R** Acevedo NC	Utilization of conventional and high oleic soybean oil oleogels to improve the nutritional profile of meat products. Proj. #1830-362-0602-C	$52,432	United Soybean Board	2017

GRADUATE STUDENT SUPERVISION AND MENTORING

Graduate Students Advised or Co-advised

Student	Degree/Date	Major(s)	First Placement	Current Placement
Bludau, Sarah	M.S. 2023*	Meat Science	n/a	n/a
Crowley, Rachel†	M.S. 2023*	Meat Science Food Science	n/a	n/a
Cho, Karin†	M.S. 2022[7]	Food Science	General Mills, Minneapolis, MN	General Mills, Minneapolis, MN
Cropp, Michael†	Ph.D. 2022[6]	Meat Science	Kemin Industries, Des Moines, IA	Kemin Industries, Des Moines, IA
Kibler, Nicole	M.S. 2021[5]	Meat Science	Hormel Foods, Inc., Austin, MN	Hormel Foods, Inc., Austin, MN
Lee, Yeong-Sheng† (2)	M.S. 2020[4]	Food Science	Unknown	Unknown
Paulus, Jona‡ (1)	M.S. 2019*	Meat Science	None	None
Miller, Danika (2)	M.S. 2018[3]	Meat Science	Tyson Foods, Inc., Downers Grove, IL	Tyson Foods, Inc., Downers Grove, IL
Lupkes, McKenna (Powell) (2)	M.S. 2017[2]	Meat Science	Kemin Industries, Des Moines, IA	Kemin Industries, Des Moines, IA
Migalla, Taylor (Wolfer) (1)	M.S. 2017[1]	Meat Science	Johnsonville Sausage, Sheboygan Falls, WI	Central Garden and Pet, Franklin, WI

Numbers in parentheses indicate number of published peer-reviewed articles as primary student author.
* Date expected.
† Served as Co-major Professor.
‡ Unable to complete degree program for personal reasons. Research 85% completed; thesis unfinished.

Thesis/Dissertation Titles

[7] Development and characterization of biphasic gels for potential application as semi-solid fat replacers in animal- and plant-based food products
[6] Can nitrite-embedded packaging film induce curing reactions in meat post-thermal processing?
[5] Replacement of pork fat in coarse ground sausage using biphasic gels containing high oleic soybean oil
[4] Food-grade Pickering emulsions stabilized by combined starch nanoparticles and chitin nanofibers and their potential use for curcumin delivery
[3] Processing characteristics and rheological properties of mechanically separated chicken and chicken breast meat
[2] Physical and chemical effects of citrus fiber as a natural alternative to sodium tripolyphosphate in uncured all-pork bologna and oven-roasted turkey breast
[1] Fat, oils, and oleogels: Their significance in and impacts on processed meat products

Formal Mentorship of Other Graduate Students

Student	Date	Program
Xiao, Shulan	Fall 2021–	Preparing Future Faculty, ISU-CELT

Graduate Student Committee Memberships
(excluding own students)

Student	Degree/Date	Major(s)	Major Advisor
Nabwiire, Lillian	Ph.D. 2023*	Food Science	Angela M. Shaw
Xiao, Shulan	Ph.D. 2023*	Meat Science Food Science	Dong U. Ahn; Buddhi P. Lamsal
Nutter, Julia	M.S. 2022	Food Science	Nuria C. Acevedo; Xiaolei Shi; Buddhi P. Lamsal
Bollom, Mark	M.S. 2020	Food Science	Nuria C. Acevedo
Cropp, Michael	M.S. 2018	Meat Science	Joseph G. Sebranek
Shivalingaiah, Niraja	M.S. 2018	Food Science	Angela M. Shaw

* Date expected

Tarté Graduate Student Awards and Recognition

Student	Year	Award/Recognition
Bludau, Sarah	2022–23	President, American Meat Science Association Student Board of Directors
Crowley, Rachel	2022–23	Midwest Area Representative, American Meat Science Association Student Board of Directors
Bludau, Sarah	2022	Meat Industry Supplier Alliance (MISA) Scholarship
Bludau, Sarah	2022	Robert E. and Dorothy B. Rust Award, ISU Dept. of Animal Science
Bludau, Sarah	2021–22	Midwest Area Representative, American Meat Science Association Student Board of Directors
Cho, Karin	2021	Iowa Food Industry Award, Iowa Section Institute of Food Technologists
Cho, Karin	2021	Chicagoland Food Science Foundation Scholarship, Chicagoland Food Science Foundation and Chicago Section Institute of Food Technologists
Cho, Karin	2021	Outstanding Graduate Student Scholarship Award, Iowa Section Institute of Food Technologists
Cropp, Michael	2019	Student Teacher "Cleaver" Award, Master's Division. American Meat Science Association
Cropp, Michael	2019	Robert E. and Dorothy B. Rust Award, ISU Dept. of Animal Science
Miller, Danika	2018	First Place. Master's Research ePoster Competition, Reciprocal Meat Conference, American Meat Science Association
Miller, Danika	2017	Meat Industry Supplier Alliance (MISA) Scholarship
Miller, Danika	2017	Stephen F. Krut Scholarship Award, American Association of Meat Processors
Miller, Danika	2017	Caine-Bogle Family Graduate Scholarship, ISU College of Agriculture and Life Sciences
Miller, Danika	2017	Robert E. and Dorothy B. Rust Award, ISU Dept. of Animal Science

Student	Year	Award/Recognition
Powell, McKenna	2017	Iowa Barbecue Society Grant
Wolfer Taylor	2016	Second Place. Three-Minute Thesis (3MT) Competition, ISU Graduate College.
Wolfer Taylor	2016	Steve Eaker Scholarship. ISU Sausage and Processed Meats Short Course.
Powell, McKenna	2016	Klaus-Peter Kreibig Scholarship. ISU Sausage and Processed Meats Short Course.
Wolfer, Taylor	2016	Meat Industry Supplier Alliance (MISA) Scholarship
Wolfer, Taylor	2016	Robert E. and Dorothy B. Rust Award, ISU Dept. of Animal Science
Wolfer, Taylor	2016	Print and Grace Powers Scholarship, ISU College of Agriculture and Life Sciences
Wolfer, Taylor	2016	C. Boyd Ramsey RMC Scholar Award, American Meat Science Association

UNDERGRADUATE STUDENT SUPERVISION AND MENTORING

Undergraduate Student Advising

Year	Number*
2022	33
2021	43
2020	45
2019	42
2018	47
2017	48
2016	43
2015	25

* Counts as of beginning of Fall semester

Undergraduate Research Training and Mentorship

Student	Semester(s)	Program	Research topic
Hauge, Bailey	Spring 2022	Science with Practice (CALS)	Modification of a traditional method for quantification of meat batter stability
Green, Deidra	Fall 2021	Science with Practice (CALS)	Comparative study of two methods of lipid and moisture determination in fresh pork loins
	Spring 2021 Summer 2021	Hourly laboratory assistant	n/a. General training on laboratory techniques and procedures; assisted in laboratory operations
Carvajal, Yureni	Spring 2021 Fall 2020	McNair Scholars FSHN Cyclone	Color and textural parameters of coarse-ground pork smoked sausage made with

Student	Semester(s)	Program	Research topic
		Scholars	novel bigel system containing high oleic soybean oil as total fat replacer
Gregg, Caroline	Spring 2020	University Honors Program	Effect of woody breast condition and freezing rate on quality attributes of chicken breast meat
Crowley, Rachel	Spring 2020	Science with Practice (CALS)	Development and validation of a meat emulsion stability method as an alternative to the Rongey method
Yoder, Laura	Spring 2018	Science with Practice (CALS)	Quality characteristics of frankfurters produced from mechanically separated chicken and chicken breast trim

VISITING SCHOLARS HOSTED

Scholar	Date(s)	Home institution
Ya-Shiou Chang	05/2018–05/2019	National Chiayi University, Taiwan
Dr. Li Zhang	01/2018–01/2019	Gansu Agricultural University, China
Dr. Xiuping Dong	09/2016–03/2017	Dalian Polytechnic University, China

TEACHING

Teaching History

Semester	Course	Course Title	Cr.	Lect.	Lab	Students
Fall 2022	AN S 571	Advanced Meat Processing Principles & Technology	3	2 h	2 h x 1	6
Fall 2022	AN S 590E	Special Topics: Meat Science	3	–	–	1
Spring 2022	AN S 590E	Special Topics: Meat Science	3	–	–	2
Spring 2022	AN S 460	Science and Technology of Value-Added Meat Products	3	2 h	2 h x 2	24
Fall 2021	ANS 270	Foods of Animal Origin	2	2 h	–	51
Spring 2021	AN S 684	Seminar in Meat Science	1	–	–	5
Fall 2020	AN S 571	Advanced Meat Processing Principles & Technology	3	2 h	2 h x 1	5
Fall 2020	AN S 270	Foods of Animal Origin	2	2 h	–	38
Spring 2020	AN S 460/560	Processed Meats	3	2 h	2 h x 2	23/1
Fall 2019	AN S 270	Foods of Animal Origin	2	2 h	–	58
Spring 2019	AN S 684	Seminar in Meat Science	1	–	–	6
Fall 2018	AN S 270	Foods of Animal Origin	2	2 h	–	49

Semester	Course	Course Title	Cr.	Lect.	Lab	Students
Spring 2018	AN S 460	Processed Meats	3	2 h	2 h x 2	30
Fall 2017	AN S 490C	Independent Study: Meat Science	2	–	–	1
Fall 2017	AN S 270	Foods of Animal Origin	2	2 h	–	59
Spring 2017	AN S 684	Seminar in Meat Science	1	–	–	4
Fall 2016	AN S 270	Foods of Animal Origin	2	2 h	–	54
Spring 2016	AN S 460/560	Processed Meats	3	2 h	2 h x 2	36/2
Fall 2015	AN S 270	Foods of Animal Origin	2	2 h	–	68

Co-Teaching/Guest Lecturing

Semester	Course	Course Title	Lectures (n)	Topic(s)
Fall 2021	FSHN 511	Integrated Food Science	3	Meat processing
Fall 2020	AN S 480G	Poultry Industry Leaders Fellows	1	Poultry processing
Fall 2019	FSHN 511	Integrated Food Science	4	Meat processing
Fall 2019	FSHN 411	Food Ingredient Interactions and Formulations	1	Nonmeat ingredients in meat products
Fall 2018	FSHN 511	Integrated Food Science	5	Meat processing
Fall 2018	FSHN 411	Food Ingredient Interactions and Formulations	1	Non-meat ingredients in meat products
Fall 2017	FSHN 511	Integrated Food Science	4	Meat processing
Fall 2017	FSHN 411	Food Ingredient Interactions and Formulations	1	Non-meat ingredients in meat products
Fall 2016	FSHN 411	Food Ingredient Interactions and Formulations	1	Non-meat ingredients in meat products
Fall 2015	FSHN 411	Food Ingredient Interactions and Formulations	1	Non-meat ingredients in meat products

SERVICE TO PROFESSION

Academic Journals

Editorial Board Memberships

2020– **Meat Science** (publisher: Elsevier)

Manuscript Peer Reviews

Journal	Period	# of reviews
Current Microbiology	2017–Present	3
European Journal of Lipid Science and Technology	2021–Present	1
Food Chemistry	2018–Present	7

Journal	Period	# of reviews
Food Research International	2018–Present	1
Grasas y Aceites	2021–Present	1
Journal of Agricultural and Food Chemistry	2018–Present	2
Journal of Animal Science	2015–Present	2
Journal of Food Science	2019–Present	1
Journal of the Science of Food and Agriculture	2019–Present	3
LWT - Food Science and Technology	2019–Present	8
Meat and Muscle Biology	2018–Present	7
Meat Science	2015–Present	47
	2003–2006	4
Plos One	2017–Present	2
Poultry Science	2019–Present	1
Revista de la Facultad de Agronomía de la Universidad del Zulia (Venezuela)	2020–Present	1

International Ph.D. Thesis Examination Committees

2021 Universitas Miguel Hernández, Orihuela (Alicante), Valencia, Spain

2021 Curtin University, Perth, Western Australia, Australia

Grant Proposal Reviews for Funding Agencies

2021 USDA-NIFA – Federal Grant Peer Review Panelist – Food, Agriculture, Natural Resources, and Human Sciences Grant Programs

2017 Beef Cattle Research Council (BCRC), Canada (n=1)

Professional Societies
(*high-profile, key leadership positions in bold*)

American Meat Science Association

2015– Member, Scientific Information Committee
2021–22 Member, Reciprocal Meat Conference (RMC) Planning Committee
2021 Abstract reviewer for 2021 Reciprocal Meat Conference.
2020 Session Chair, International Congress of Meat Science and Technology / Reciprocal Meat Conference
2018–20 Member, 2020 International Congress of Meat Science and Technology (ICoMST) Technical Planning Committee. Session chair and co-moderator.
2015–20 Member, Reciprocal Meat Conference (RMC) Planning Committee
2015–16 Subcommittee Chair / Session Chair, Reciprocal Meat Conference (RMC) Planning Committee
2013–15 Advisor, Student Board of Directors
2013–14 Chair, *Meat Processing* Award Selection Committee

2010–12	**Director, Board of Directors** (elected position)
2013–14	**Chair, Membership Committee**
2013–14	Member, Membership Committee
2013, 2010	Judge, *Taste of RMC* Student Product Development Competition
2010–13	Member, Reciprocal Meat Conference (RMC) Planning Committee
2011	**Session Chair, Reciprocal Meat Conference (RMC) Planning Committee**
2009–10	Chair, Web Site Committee
2005–08	**Chair, Scientific Information Committee**
2004–07	Member, Research Protocol Committee
2004–05	**Conference Chair, AMSA/NMA (National Meat Association) Meat Science Conference**
2002–05	Member, Meat Industry Research Conference (MIRC) Planning Committee
2003	**Session Chair, Meat Industry Research Conference (MIRC)**
2003	Chair, AMSA/AMI Intercollegiate Processed Meats Clinic (IPMC) Planning Committee
2002–03	Member, AMSA/AMI Intercollegiate Processed Meats Clinic (IPMC) Planning Committee

Institute of Food Technologists

2007–	IFT Ambassador
2007	Annual Meeting Session Moderator
2006–09	**Chair-elect/Chair/Past-Chair, Muscle Foods Division** (elected position)
2006–07	Member, Scientific Program Subcommittee
2005, 2004	Annual Meeting Technical Abstract Reviewer
2005, 2003	Judge, Muscle Foods Division Graduate Paper Competition
2004–05	Member, Technical Presentations Committee
2003–05	Annual Meeting Session Moderator
2003–05	**Member-at-Large, Executive Committee, Muscle Foods Division**
1993–94	Graduate Student Representative, Iowa Regional Section

Phi Tau Sigma, The Honor Society of Food Science and Technology

2020–23	**President-Elect/President/Past-President** (elected position)
2022	Chair, Ad Hoc *Carl R. Fellers Distinguished Career Award* Task Force
2020–23	Member, Finance Committee
2021–22	Jury Panel Chair, *Carl R. Fellers Distinguished Career Award*
2020–22	Member, *Ad Hoc* Future Directions Committee
2020–22	Chair and Past Chair, Scientific Program Committee
2014–22	Member, Membership and Qualifications Committee
2018–20	**Director, Board of Directors** (elected position; 3-year term, cut short due to election to President-elect)
2018–20	Member, Recruitment Campaign Ad Hoc Committee
2016–17	Chair, Membership and Qualifications Committee
2016–17	Member, Constitution and Bylaws Committee

External Research Consortia

2017–	Alliance for Research and Innovation in the Rendering and Pet Food Industries

INSTITUTIONAL SERVICE

Committees

Modern Views in Nutrition Seminar Committee. Fall 2022–Present.

Graduate Education and Affairs Committee, Dept. of Animal Science. 2017–Present.

Chuckwagon Breakfast Committee, Dept. of Animal Science. 2015–Present; Chair 2019–Present.

Academic Quadrathlon Committee, Dept. of Animal Science. 2015–Present.

Search Committee for Professor and Chair of Department of Food Science and Human Nutrition. 2021–22.

University Academic Advising Committee. 2021–2022.

Seminar Committee, Dept. of Animal Science. 2015–2021.

Search Committee for Associate Dean for Extension and Outreach & ISU Extension Program Director for Agriculture and Natural Resources. 2019.

Other Service Activities

Editor. Iowa State University Animal Industry Report. 2020–Present. Led successful migration in 2020 of review and publishing process to *Janeway* online scholarly publishing platform through ISU Digital Press.

Judge. *Norman Borlaug Lectureship Poster Competition*. 2022

Faculty Innovator and Technical Consultant. Student Innovation Center. Led the "Building Better Fats" Student Innovation Design Sprint. 2021–2022

Director of Meat Science Certificate Programs. 2018–Present.

Preliminary heat judge. Graduate College Three Minute Thesis Competition. 2018, 2019, 2021.

Faculty moderator, *15th Symposium on Undergraduate Research and Creative Expression*. 2021 Apr 21.

Judge. *ISU Intercollegiate Meat Judging Contest*. 2016, 2017, 2018, 2019, 2020.

Faculty mentor. *Lazos* (Bonds) affinity group for Latino male students, faculty and staff. Office of the Vice President for Diversity and Inclusion. 2017–

Faculty advisor. Block and Bridle Club Summer Sausage and Cheese Sales. 2018, 2019.

Invited faculty panel member. Animal Science 210 (Career Preparation in Animal Science). Topic: "Professionalism." 2017, 2018.

Invited faculty panel member. University Studies 275 (Integrative Undergraduate Research: Methods, Applications, and Communication Strategies). Topic: "Academia vs. Industry." 2017, 2018.

Faculty co-advisor. Block and Bridle Club Meats Interest Group. 2016–

EXTERNAL SERVICE

Service to the Meat Industry

American Association of Meat Processors (AAMP)
Judge. *American Cured Meat Championships*. Des Moines, IA, 2022.

Iowa Meat Processors Association (IMPA)
Judge. *State Fair Ham, Bacon, and Cured & Smoked Beef Competition*. Des Moines, IA, 2015, 2016, 2018.
Judge. *IMPA Annual Convention Meat Judging Contest*. Ames, IA, 2016, 2017, 2018, 2019, 2022.

External Professional Service Appointments

Colombian Institute of Technical Standards and Certification (ICONTEC), Bogotá, Colombia
1996–1997 Member of Technical Committee 311101, charged with drafting and finalizing Colombian Technical Standard 1325: *Food Industry. Processed Meat Products (non-canned)*, 4th rev., 1998.

External Professional Volunteer Activities

Department of Food Science and Human Nutrition, Iowa State University
2012–15 Member, External Advisory Committee

United Nations Volunteers – Corporate/Private Sector Program (UNV-CPSP)
2008 Short-term Technical Advisor. Client: Centre Songhaï, Porto-Novo, Benin (http://www.songhai.org). Topic: Meat and food (soymilk, yogurt, fruit juices) processing, including formula development, manufacturing improvements, food safety, shelf-life extension and packaging improvements.
Two-week on-site assignment
2005 Short-term Technical Advisor. Client: Small private meat processing micro-enterprise, Bishkek, Kyrgyzstan. Topic: Meat processing.

Other Activities and Leadership

Kraft Foods Latino Council. Member, Oct 1999–May 2011.

Iowa State Univ. Intercollegiate Food Science and Technology College Bowl Team. Member, Captain and Coach, 1991–1994.

Student Clubs, Iowa State University:
- Food Science and Human Nutrition Club.
- Meat Science Club. President, 1992–93; Vice-president, Jan–Sep, 1991.

MEDIA INTERACTIONS

2022 College of Agriculture and Life Sciences, Iowa State University. 2022 Jan 18. News release: *Iowa State University innovator gaining national interest for new 'healthy' fat technology*. https://www.cals.iastate.edu/news/releases/iowa-state-university-innovator-gaining-national-interest-new-healthy-fat-technology.

2021 Bricher JL. 2021 Oct. Independent Thinker. Meatingplace magazine, p. 58–60, 62–64, 66, 68, 70. https://meatm.ag/tarte.

2021 Bricher JL. 2021, Oct. 12. Iowa State's Rodrigo Tarté gets thoughtful on R&D. Meatingplace.com. https://www.meatingplace.com/Industry/News/Details/101651. [sign-on required]

2021 Najar F. 2021 Jul 5. La armonía ideal entre la sal y la carne (in Spanish: *The ideal harmony between salt and meat*) [podcast]. MeatsPad ESP [episode 25]. American Meat Science Association. https://www.meatspad.com/espanol.

2021 Bricher, JL. 2021 Jun 28. The meaty science side of R&D product innovation [podcast]. MeatingPod [episode 24]. Meatingplace magazine. https://www.meatingplace.com/Industry/Podcasts/Details/99272.

2021 Najar F, Bass P. 2021 Jun 2. The truth behind salt [podcast]. MeatsPad [episode 30]. American Meat Science Association. https://anchor.fm/fnajar/episodes/The-truth-behind-salt--Dr--Rodrigo-Tart-e1217jh.

2020 Munson C. 2020 Jan 13. Meat alternatives [podcast]. The Spokesman Speaks [episode 30]. Iowa Farm Bureau. https://www.iowafarmbureau.com/Article/Iowa-Farm-Bureaus-legislative-priorities-in-2020-The-Spokesman-Speaks-Podcast-Episode-30.

2019 *National Provisioner* magazine. Interviewed for article "The use of gums, binders and emulsifiers in meat and poultry;" published Oct 29. https://www.provisioneronline.com/articles/108548-the-use-of-gums-binders-and-emulsifiers-in-meat-and-poultry.

2019 *National Provisioner* magazine. Interviewed for article "Piecing together the sodium reduction puzzle;" published Jul 18. https://www.provisioneronline.com/articles/108228-piecing-together-the-sodium-reduction-puzzle.

2019 WHO Radio, Des Moines, IA. Live interview in "The Big Show" radio broadcast. Topic: alternative proteins; May 10.

2018 RFD-TV, Nashville, TN. Live interview in "Market Day Report" agricultural news program. Topics: ISU online graduate certificate in meat science; ISU 100 years of meat science celebration;" Jul 31.

2017 *National Provisioner* magazine. Interviewed for article "Gums, binders and emulsifiers: cleaning up labels;" published Oct 17. https://www.provisioneronline.com/articles/105395-gums-binders-and-emulsifiers-cleaning-up-labels.

2017 *National Provisioner* magazine. Interviewed for article "A shift to more natural preservation;" published Apr 5. https://www.provisioneronline.com/articles/104641-a-shift-to-more-natural-preservation.

2016 *National Provisioner* magazine. Interviewed for article "Mixing technology steps up to the plate;" published Mar 21. https://www.provisioneronline.com/articles/103028-mixing-technology-steps-up-to-the-plate.

1993 Interviewed in "Educating the Consumer" radio broadcast; topic: proper selection and handling of foods; Panama City, Panama; Jan 8.

1989 M.S. research project written about in: Lund, A. (1989, Apr/May). Here's the Beef. *Iowa Agriculturist*; p. 18–19.

AREAS OF PROFESSIONAL COMPETENCE AND EXPERTISE

Food product, process and technology development and commercialization.
Meat science and technology.
Meat product design, formulation, optimization and processing.
Food ingredient technology and application.
Microbiological food safety.
Food irradiation technology.
Food extrusion technology.
Industrial research management.
Technical and scientific personnel management and development.

LANGUAGES

English – Fluent in reading, speaking, writing
Spanish – Fluent in reading, speaking, writing
Portuguese – Can read; limited conversational ability
French – Limited reading ability