Sungeun

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# Sungeun Cho, PhD

Department of Poultry Science, Auburn University

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#### **ACADEMIC POSITIONS**

Assistant Professor (2019 – present)

Department of Poultry Science, Auburn University, Auburn, AL

Adjunct Faculty (2019 – present)

Department of Home Economics Education, Korea University, Seoul, Korea

Assistant Professor (2015 – 2019)

Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI

Director of the MSU Sensory Lab; Specialist in the MSU Product Center; <u>Advisor of the MSU Product</u> Development Teams for **IFTSA MARS PD Competitions** (won 1<sup>st</sup> in 2019, 2<sup>nd</sup> in 2016, 2017 and 3<sup>rd</sup> in 2018).

Post-Doctoral Associate (2012 –2015)

Department of Food Science, University of Arkansas, Fayetteville, AR

Worked in The U of A Sensory Service Center; Involved in The U of A Rice Processing Program

# **EDUCATION**

Doctor of Philosophy, Horticulture, University of Georgia, Athens, GA

(2008 - 2012)

Dissertation: "Aroma Chemistry of Wild Rice (*Zizania palustris*) and African Species (*Oryza sativa*, *Oryza glaberrima*, and Interspecific Hybrids)" - Advisor: Dr. Stanley J. Kays

Master of Science, Food Science and Technology, University of Georgia, Athens, GA

(2006 - 2008)

Thesis: "Optimization of Enzyme Extractions for Folate in Cereals and Determination of Folate Content in Breakfast Cereals" - Advisor: Dr. Ronald R. Eitenmiller

Bachelor of Science, Food Science and Technology, Chungbuk National University, Rep. of Korea

(2000 - 2005)

#### RESEARCH

## **Primary Field of Specialization:**

## Sensory and Consumer Science, Flavor Chemistry, Food Product Development, Physicochemical Analysis

#### **Research Interests**

- 1. Integrate sensory and consumer research to promote healthier eating behaviors.
- 2. Understand sensory perception and eating behavior associated with environmental and psychological factors.
- 3. Combine electronic senses (e-tongue and e-nose) and sensory methods to measure food quality.
- **4.** Develop new and innovative products that promote a healthier life.

#### **TEACHING**

#### Instructor

- 1. Food Science Program, Department of Poultry Science, Auburn University (AU): Introduction to Food Science (FDSC 1000); Food Science Internship (FDSC 4920); Special Problems-Food Processing (FDSC 4970); Sensory Evaluation (FDSC 5730/6730); Food Chemistry (FDSC5430/6430); Sensory Evaluation (FDSC7730)
- 2. Department of Home Economics Education, Korea University (KU): Sensory and Consumer Science (HEE84600)
- 3. Department of Food Science and Human Nutrition, Michigan State University (MSU): Sensory Evaluation and Consumer Research (FSC 310); Food Product Development (FSC 470\*, a Food Science Capstone Class) \*Work with Food Industry Sponsors (Wrigley MARS, Ajinomoto, Detroit Ento) for Product Development Projects and Present Posters with Final Products to Sponsors and the MSU Food Science Advisory Board

## **Guest Lecturer**

Honors Research (HNOR 1087), Honors College, AU – "Sensory research at Auburn University"; Global Foods and Culture (HNF 406), Food Science and Human Nutrition, MSU - "Korean Culture and Food: Aesthetics of Korean Food."; Exploring Wines and Vines (HRT 430)

**Sensory/ Product Development Specialist,** MSU Product Center Food-Ag Bio, Michigan State University, East Lansing, MI. https://www.canr.msu.edu/productcenter (2015 – 2019)

- 1. Provide specialized services in the area of food product development, formulation, shelf life determination and general food science matters to the other Product Center staff and entrepreneurs.
- 2. Supervise student employees who are responsible for the testing services and nutrition fact labels.

## Other Activities, Michigan State University, East Lansing, MI.

- 1. Instructor, 4-H Health and Food Science Camp Presentation title: "Eat with Your Five Senses" (Summer 2016, Summer 2017)
- 2. Volunteer, Science Olympiad Food Science help coordinate the event and proctor &d grade exams (Spring 2016)
- 3. Volunteer, Michigan FFA Career Development Event Prepare aroma and sensory evaluation samples for the event (Spring 2016, Spring 2017, Spring 2018)

# GRANTS (*FUNDED*)

- 1. USDA NIFA Equipment Grant, "Procuring Cold Plasma Technology for Food and Agriculture Research," Total Funding Received: \$133,755 (Award year: 2024), Co-PI.
- **2.** USDA ARS, "Sustainable Poultry Processing Research," Total Funding Received: \$2,590,116 (Project Dates: September 2022 August 2024), Responsibilities: Sensory and Consumer Research. *Co-PI*, Sensory Evaluation.
- **3.** National Science Foundation, "Collaborative Research: Investigation of Decoupled Algal-biofloc Aquaponics Technology for Development in Food Deserts," **Total Funding Received:** \$575,737 (Project Dates: June 2022 May 2025). *Co-PI*, Sensory Evaluation.
- **4. AU AAES AgR-SEED**, "Understanding the Mechanisms of Dormancy and Bud Break in the Perennial Blueberry Crop and Impacts on Market Quality," Total Funding Received: \$50,000 (Project Dates: October, 2021 September, 2023), Responsibilities: Co-PI, Sensory Evaluation & Instrumental Evaluation. *Co-PI*, Sensory Evaluation.
- **5. AU AAES Equipment Grant,** "An Electronic Intelligent System for Food Quality and Safety Assessment," Total Funding Received: \$100,000 (with 50% cost share). (Award year: 2021), *PI*.
- **6. AU Intramural Grants Program Interdisciplinary Team Research (Auburn University)**, "A Smart Sensor System for Strawberry Quality Assessment: *Potential for Innovative Pre and Postharvest Management of Strawberries*," Total Funding Received: \$20,000 (Project Dates: May, 2020 April, 2022), **PI**, Sensory Evaluation.
- 7. AU Intramural Grants Program Interdisciplinary Team Research (Auburn University), "A Smart Sensor System for Strawberry Quality Assessment: Potential for Innovative Pre and Postharvest Management of Strawberries," Total Funding Received: \$20,000 (Project Dates: May, 2020 April, 2022), PI, Sensory Evaluation.
- 8. North Central Sustainable Agriculture Research & Education (NCR-SARE), "Enhancing Healthfulness and Demand of Upper Midwestern, Locally Produced Beef," Total Funding Received: \$199,149. (Project Dates: October, 2018 September 2021), *Co-PI*, Sensory Evaluation and Data Analysis.
- 9. Specialty Crop Research Initiative, (USDA NIFA), "Developing a Sustainable Stevia Industry in the United States," Total Funding Received: \$3,2000,000. (Project Dates: September 2017 August 2021), *Co-PI*, Sensory Evaluation and Consumer Research.
- **10. Michigan State University Project GREEN**, "Producing premium-quality specialty food crops indoors using innovative LED lighting," Total Funding Received: **\$70,455**. (Project dates: May 2017 May 2019). Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- 11. The Michigan State University Center for Packaging Innovation and Sustainability (Center), "Utilization of agricultural industry waste in novel composites for the development of sustainable packaging formats (films and trays)," (Project dates: March, 2017 March, 2018). Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- 12. Midland Research Institute for Value Creation (MRIVCC) Value Chain Index Grant, "Nano-bioelectric techniques for novel microbial intervention in packaged foods," Total Funding Received: \$360,000. (Project dates: August 2016- August 2019). Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.

- 1. Specialty Crop Research Initiative, (USDA NIFA), "Addressing critical needs to improve competitiveness of the US stevia industry." Total Funding Requested: \$2,385,000. Year of submission: 2022, 2023. Responsibilities: Co-PI, Sensory and Consumer Research
- 2. Sustainable Agricultural Systems (USDA NIFA), "Improving the production, processing, and utilization of catfish fillet and by-products." Total Funding Requested: \$6,451,267. Year of submission: 2021. Responsibilities: Co-PI, Sensory Evaluation
- **3.** Sustainable Agricultural Systems (USDA NIFA), "Converting citrus juice waste into compostable packaging for food." Total Funding Requested: \$9,958,418. Year of submission: 2021 & 2019. Responsibilities: Co-PI, Sensory Evaluation
- **4.** Agriculture and Food Research Initiative (USADA NIFA), "Reduction of raw poultry and meat foodborne pathogens using photo-active antimicrobials." Year of submission: Year of submission: 2021 & 2020. Total Funding Requested: \$650,000. Responsibilities: Co-PI, Sensory Evaluation
- 5. Specialty Crop Research Initiative, (USDA NIFA), "Rebuilding the capacity of the Michigan asparagus industry through new varieties and improved production practices," Total Funding Requested: \$1,500,000. Year of submission: 2019. Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- **6.** Scheme for Promotion of Academic and Research Collaboration (SPARC), A Government of India Initiative, "A study on issues and challenges in availability, accessibility and acceptability (3A's)," Total Funding Requested: \$108,371. Year of submission: 2019. Responsibilities: Co-PI, Collaborative teaching and research in India and the U.S.
- 7. Specialty Crop Research Initiative (USDA NIFA), "Rebuilding the capacity of the Michigan asparagus industry through new varieties and improved production practices," Total Funding Requested: \$1,155,700. Year of submission: 2018. Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- **8.** Organic Agriculture Research Extension Initiative, (USDA NIFA), "Improved postharvest storage, processing and packaging strategies to enhance safety and quality of organic product," Total Funding Requested: \$1,999,999. Year of submission: 2017. Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- 9. Michigan State University Project GREEN, "Impact of Labeling on Consumer Value Perception and Sensory Acceptance of Tart Cherry Products," Total Funding Requested: \$68,827. Year of submission: 2017. Responsibilities: PI, Sensory Evaluation and Consumer Research.
- **10.** Michigan State University Project GREEN, "Impact of low seasonal temperatures on non-volatile phenolic compounds during cellar storage and its implication for red wine quality in Michigan," MSU Project GREEN. Total Funding Requested: \$39,951. Year of submission: 2017. Responsibilities: Co-PI, Sensory Evaluation.
- **11.** Agriculture and Food Research Initiative Foundational Program (USDA NIFA), "Enhancing flavor while suppressing microbial growth in fresh-cut produce by using active packaging,". Total Funding Requested: \$499,715 Year of submission: 2017. Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- **12.** Michigan Grape & Wine Industry Council, "Evaluation of changes on non-volatile phenolic compounds during cellar storage and its implication for red wine quality in Michigan," Total Funding Requested: \$29,051. Year of submission: 2016. Responsibilities: Co-PI, Sensory Evaluation and Data Analysis.
- **13.** Michigan Development of Agriculture & Rural Development (USDA Specialty Crop Block) "Assessment of direct- to-concentrate (DTC) processing of Niagara grape juice in conjunction with various pre-treatment steps,". Total Funding Requested: \$79,672. Year of submission: 2016. Responsibilities: Co-PI, Sensory Evaluation.
- **14.** Michigan State University Project GREEN, "Assessing consumer perceptions and preference toward cherry product labels and sensory acceptance of cherry products with the enhanced labels," Total Funding Requested: \$54,624. Year of submission: 2016. Responsibilities: PI, Sensory Evaluation and Consumer Research.

# Food Science Program, Poultry Science, Auburn University, Auburn, AL.

**Major Professor:** Five MS students (Nannapas Muenprasitivej, 2020 – 2022; Reed Williams, 2021 – 2023; Md. Shakir Moazzem, 2021 – 2023; Linda Barahona, 2023 – present; Ainsley Jessup, 2023 – present; Jacob Dees, 2024 – present).

**Graduate Guidance Committee Member:** Four MS students completed in 2021-2024; one Ph.D. student and three MS students in progress.

#### Food Science and Human Nutrition, Michigan State University, East Lansing, MI.

**Major Professor:** One PhD student (Edward Szczygiel, 2016 – 2019) and two MS students (Shelby Cieslinski, 2017 – 2019; Ran Tao, 2018 – 2020).

Graduate Guidance Committee Member: Three MS students completed in 2017-2019.

# POSTER PRESENTATION

- 1. Carrera, H.G., Berganza, I.M., Bryne, S.A., Cho, S., Starkey, C.W., Starkey, J.D. Effect dehydration time on sensory characteristics of jerky-style pet treats made from swine pluck. 2025 IPPE AFIA Pet Food Conference. January 2025.
- 2. Tashiguano, V., Sierra, K., Guzman, L., Valenta, J., Garner, L., Cho, S., Morey, A. Stuyding impact of cold chain disruptions on chicken spoilage at retail. Poultry Science Association 2024 Latin American Scientific Conference. October 2024.
- **3.** Jessup, A., Jones, J., Barahona-Dominguez, L., Dees, J., Hayden, M., Cho, S. Evaluation of sensory characteristics and consumer acceptance of electrical and gas-stunned broilers during chilled storage. 2024 Society of Sensory Professionals. October 2024.
- **4.** Barahona, L.D., Baker-Cook, B., Cho, S. Consumer perception survey of animal welfare in broiler stunning. 2024 Society of Sensory Professionals. October 2024.
- 5. Beckman, N., Walters, H., Bench, B.J., Cho, S., Morey, A., Valenta, J., Rochell, S. Influence of dietary inclusion of black soldier fly larvae frass on broiler performance and meat yield, quality, and sensory characteristics. 2024 Poultry Science Association Annual Meeting. July 2024.
- **6.** Jessup, A., Barahona-Dominguez, L., Hayden, M., Cho, S. Impact of vacuum packaging in chicken breast over time. Auburn Research Symposium, Auburn, AL. March 2024.
- 7. Carrera, H. G.\*, I. M. Berganza\*, S. Cho, J. D. Starkey, and C. W. Starkey. 2024. Effect of dehydration time on textural, chemical, and instrumental color properties of jerky-style dog treats made with swine pluck. 2024 Petfood Forum. January 2024.
- **8.** Abascal-Ponciano, G. A.\*, J. L. Sandoval\*, S. Cho, C. W. Starkey, and J. D. Starkey. 2024. Electronic nose detection of aroma profiles of beef liver flavors developed using proteolytic enzymes with different incubation times. 2024 Petfood Forum. January 2024.
- **9.** Sandoval, J. L.\*, G. A. Abascal-Ponciano\*, S. Cho, C. W. Starkey, and J. D. Starkey. 2024. Influence of incubation conditions with proteolytic enzymes on electronic nose aroma profiles of chicken viscera packs. 2024 Petfood Forum. January 2024.
- 10. Barahona, L.D., Hayden, M., Jessup, A., Cho, S. Rapid flavor assessment of warmed-over deep-fried chicken and quality changes over time. 2024 IPSF (International Poultry Scientific Form). Jan 2024.
- 11. Dees, J., Bak, S., Barahona, L.D., Hayden, M., Cho, S. Application of ultrafast gas chromatography electronic nose to characterize warmed-over flavor in chicken muscle and skin. 2024 IPSF (International Poultry Scientific Form). January 2024.
- 12. Barberena, J.J., Carrera, H., Berganza, I., Romero, J., Dunavant, J., Abscal-Ponciano, G.A., Cho, S., Starkey J.D., Starkey, C. Evaluation of textural characteristics of commercially available meat stick-style pet treats. Submitted to 2023 ASAS-CSAS (American Society of Animal Science-Animal Canadian Society of Animal Science)-WSASAS. July 2023
- **13.** Cho, S., Hayden, M., Moazzem, M.S.\*, Barahona, L.D.\*, Williams, R.\* Influence of stunning methods on sensory characteristics of chicken breast meat. *2023 Pangborn Symposium*. August 2023.

- **14.** Barberena, J.J., Carrera, H., Berganza, I., Romero, J., Dunavant, J., Abscal-Ponciano, G.A., **Cho, S.**, Starkey J.D., Starkey, C. Evaluation of textural characteristics of commercially available meat stick-style pet treats. Submitted to *2023 ASAS-CSAS (American Society of Animal Science-Animal Canadian Society of Animal Science)-WSASAS*. July 2023.
- **15.** Domer, R.N., Romero, J., Berganza, I., Carrera, H., Dunavant, J., **Cho, S.,** Starkey, J.D., Starkey, C. Evaluation of textural characteristics of commercially available sweet potato jerky-style pet treats. Submitted to *2023 ASAS--WSASAS*. July 2023.
- **16.** Romero, J., Carrera, H., Dunavant, J., Berganza, I., Abascal-Ponciano, G.A., Sandoval, J., **Cho, S.,** Starkey, J.D., Starkey, C. Assessment of textural characteristics and instrumental color of commercially available whole-muscle jerky style pet treats. Submitted to *2023 ASAS-CSAS -WSASAS*. July 2023.
- 17. Carrera, H., Romero, J., Berganza, I., Dunavant, J., Abscal-Ponciano, G.A., Cho, S., Starkey, J.D., Starkey, C. Evaluation of textural characteristics (texture profile analysis and shear force) on commercial training pet treats. Submitted to *2023 ASAS-CSAS)-WSASAS*. July 2023.
- **18.** Barahona, L.D., Hayden, M., Moazzem, M.S., Williams, R., **Cho, S.** Rapid assessment of flavor profiles of raw and cooked chicken meat by electronic tongue and electronic nose. 2023 IPSF (International Poultry Scientific Form). Jan 2023.
- 19. Moazzem, S., Cho, S., Muenprasitivej, N., Williams, R. \*Furaneol in strawberries during the shelf-life: correlation between electronic tongue analysis and sensory perception. SSP (Society of Sensory Professionals) 2022 Conference. November 2022 \*Won the student scholarship award
- **20.** Kim, W., Lee, D., W, G., Cha, Y., Cho, S., Kim, D.-J. Furaneol detection with molecularly imprinted polymer (MIP)-based polyaniline (PANI) gas sensor. 242<sup>nd</sup> Electrochemical Society Meeting. October 2022.
- **21.** Duguma, H.T., Fehlberg, J., Macke, P., **Cho, S.**, Almenra, E. Orange peel powder as a filler for plastic films for food packaging applications: a case study in bread. 2022 IFT (Institute of Food Technologists) Annual Meeting & Expo. July 2022.
- **22. Cho, S.**, Muenprasitivej, N., Tao, R., Nardone, S., Johnson, J. New Protocol for ASTREE electronic tongue to distinguish sugars and sweeteners. *Pangborn Symposium*. August 2021.
- **23.** Cieslinski, S.R., Behe, B., **Cho**, **S**. Influence of claim and sweetener labeling factors on consumer perception of ice cream. *Pangborn Symposium*. August 2019.
- **24.** Cieslinski, S.R., Szczygiel, E.J., **Cho**, **S**. Influence of lighting color temperature on acceptability of ice cream. *IFT Annual Meeting Scientific Program*. June 2019.
- **25.** Szczygiel, E.J., Crown, E., Cho, S. Spicy food intake reduce by beverage type for non-obese females. *IFT Annual Meeting Scientific Program*. June 2019.
- **26.** Lutz, J.M., Ernst, N., Brummitt, A.R., Hofman, J., Schweihofer, J.P., Cho, S., Rozeboom, D.W. Feeding liquid sweet whey to growing swine. *Midwest American Society of Animal Science Annual Meeting*. March 2017
- 27. Lopez, K., Fehlberg, J.A., Ghasemlou, M., Oglesby, M.B., Ryser, E., Harte, J., Cho, S., Rubino, M., Almenar, E. Development of a novel antimicrobial pouch made of polyethylene terephthalate coated with a UV-curable formulation containing 2-(E)-hexenal and its effects on the quality of blueberry fruit. *Institute of Food Technologists Annual Meeting*. June 2017.
- **28.** Caputo, V., Ortega Newman, D. L., & **Cho**, **S**. The role of five senses on food choice selection: combining experimental and sensory data. *Agricultural & Applied Economics Association Annual Meeting*. July 2017.
- **29.** Martin, R.M., Rowntree, J.E., Schweihofer, J.P., Harte, J.B., **Cho, S.** Two-year study comparing high-energy forage and feedlot finishing impact on beef consumer acceptability and sensory characteristics in the Upper Midwest. *ASAS-CSAS* (*The American Society of Animal Science Canadian Society of Animal Science) Annual Meeting.* July 2017.
- **30.** Szczygiel, E.J., VanderWeide, J.M., Brock, E.M., Harte, J.A., **Cho, S.** Aroma chemistry and consumer acceptance navy bean flour. *IFT (Institute of Food Technologists) Annual Meeting Scientific Program.* July 2016.

- **31.** Cho, S., Yoon, S.H., Min, J., Lee, S., Lee, S.-O., Seo, H.-S. Descriptive sensory analysis and texture profile analysis of *Sulgidduk* (Korean traditional cake made with rice flour). *IFT Annual Meeting Scientific Program*. June 2014.
- **32.** Cho, S., Yoon, S.H., Min, J., Lee, S., Lee, S.-O., Seo, H.-S. Relationship between consumer innovativeness and sensory acceptance of *Sulgidduk* (Korean traditional cake made with rice flour). *IFT Annual Meeting Scientific Program*. June 2014.
- **33.** Cho, S., Hasenbeck, A., Huddleston, E., Yang, F., Tokar, T., Meullenet, J.-F., Seo, H.-S. Influence of colored lighting on the willingness to eat bell peppers. *IFT Annual Meeting Scientific Program*. July 2013.
- **34. Cho, S.** and Kays, S.J. Characterization of volatile aroma compounds in cooked wild rice (*Zizania palustris*) using GC-O. *IFT Annual Meeting Scientific Program*. June 2011.
- **35.** Cho, S., Kota, L., Choi, Y., Lee, J., Eitenmiller, R.R. Optimization of enzyme extractions for folate in cereals and peanut butter. *IFT Annual Meeting Scientific Program*. July 2008.

## ORAL PRESENTATIONS (INVITED SPEAKERS/ SEMINAR TALKS)

- 1. Evaluation of sensory characteristics and consumer acceptance of electrical and gas stunned broilers during chilled storage, US Korea Conference (UKC), San Francisco, CA, August 23, 2024
- 2. Current and future use of electronic senses in sensory evaluation, 2024 KoSFoST (Korean Society of Food Science and Technology) International Symposium and Annual Meeting, Daegu, Korea, July 4, 2024
- 3. Use of electronic senses in sensory science, Pusan National University, Busan, Korea, July 2, 2024
- **4.** Consumer perception and acceptability of novel and unfamiliar foods, *Home Economics Education, Korea University*, Seoul, Korea, June 28, 2024
- **5.** Sensory and consumer science research at Auburn University, *Home Economics Education, Korea University*, Seoul, Korea, June 28, 2024
- 6. Sensory research at Auburn University, Auburn Global Short-Term Program, Auburn, AL, June 27, 2024
- 7. E-senses and sensory evaluation. *Food and Nutrition, Chonnam National University, Korea*, December 14, 2023
- **8.** Sensory evaluation, humans and instruments. *PetShure IMAGINARIUM, Turning Imagination into Reality, Auburn, AL*, November 15, 2023
- **9.** Influence of stunning methods on sensory characteristics of chicken breast meat using electronic senses. *US Korea Conference (UKC), Dallas, TX,* August 3, 2023.
- **10.** E-tongue, e-nose, and sensory research. 36<sup>th</sup> Annual Meeting, *The Southern Section of the AOAC International, Atlanta, GA*, April 19, 2023
- **11.** Sensory evaluation, humans and instruments. *PetShure IMAGINARIUM, Turning Imagination into Reality, Auburn, AL*, November 15, 2022.
- **12.** What makes variations in consumer responses to stevia? *Science-Telling About Revolution (STAR) in Sensory Nudges*, <u>International Virtual Conference</u> hosted by the University of Arkansas with collaborations with the University of Parma and Sejong University. October 20, 2022.
- 13. Next generation stevia sweeteners, Rebaudioside D and M: food applications and consumer perception, 2022 KFN (The Korean Society of Food Science and Nutrition) International Symposium and Annual Meeting, Jeju Island, Korea, October 21, 2022.
- **14.** Sensory Research at Auburn University. Food and Nutrition, Changwon National University, Chonbuk National University AND Chungbuk National University, Korea, May-June 2022
- 15. From Farm to Table. Plant Science Group in AAES. Auburn University, December 2021
- **16.** USDA NIFA SCRI Project (Grant number 2017-51181-26828), *Stevia stakeholder meeting in Fort Valley, GA*, October 29, 2021.
- 17. Sensory and Consumer Science. Food Science and Technology, Chungbuk National University, Korea, March 2021
- **18.** Invited Speaker. Sensory Evaluation in Product Development. Food and Nutrition, Changwon National University, Korea, January 2021

# ORAL PRESENTATIONS (INVITED SPEAKERS/ SEMINAR TALKS) – Cont'd

- **19.** Invited Speaker. Stevia, A natural Zero-Calorie Sweetener. Food and Nutrition, Changwon National University, Korea, December 2020
- **20.** Guest Speaker Sensory and Consumer Science Beyond Liking. *Department of Poultry Science Seminar, Auburn University, Auburn, AL. November 2020*
- **21.** Guest Speaker. Horticulture and Sensory & Consumer Science. *Department of Horticulture Seminar, Auburn University, Auburn, AL. November 2019*
- **22.** Invited Speaker. The Influence of Consumer Sweetener Knowledge on Stevia Perception. *US Korea Conference (UKC), Queens, NY*. August 2018.
- **23.** Invited Speaker. Effects of Color on Flavor Perception and Eating Behavior. *US Korea Conference (UKC), Dallas, TX.* August 2016.
- **24.** Invited Speaker. Sensory Science behind Wine Tasting. *MSU Food Science Club Wine Tasting Night, East Lansing, MI.* September 2017 & April 2016.
- **25.** Invited Speaker. What makes tea the healthiest beverage on the planet. *Tea Conference, Seoul/Rep. of Korea.* July 2017.
- **26.** Guest Speaker. Sensory Acceptability and Marketability of Soft Rice Cake. *Rice Industry Alliance Meeting, Fayetteville, AR. November 2014.*
- 27. Invited Speaker. Instrumental and Sensory Analysis of Rice Aroma. *Chungbuk National University, Cheong Ju/Rep. of Korea.* November 2012

## PEER-REVIEWED JOURNALS

- 1. Duguma, H.T., Fehlberg, J., Macke, P., Matuana, L.M., Cho, S., Almenar, E. 2025. Impact of the replacement of polyethylene with waste from orange juicing on the physicochemical, microbiological, and sensory quality of packaged bread. Food Packaging and Shelf Life, 14, 101417.
- **2.** Moazzem, M.S., Hayden, M., Kim, D. J., Cho, S. **2024**. Assessment of changes in sensory characteristics of strawberries during 5-day storage through correlation between human senses and electronic senses. *Foods*, 13, 3269.
- 3. Park, S.W., Lee, H.J., Kim, J., Kim, T. Y., Seo, Y. R., Kim, W.I., Cho, S., Kim, M.J. 2024. Protective effects of purple corn (*Zea mays* L.) byproduct extract on blue light-induced retinal damage in A2E-accumulated ARPE-19 cells. *Preventive Nutrition and Food Science*, 29, 376-383.
- **4.** Kim, Y., Cho, S., Kim, Y. **2024**. Quality properties of salt-fermented mealworms (Tenebrio molitor larvae) with added millet. *International Journal of Gastronomy and Food Science*, 101007.
- **5.** Aung, T., Park, S.S., **Cho, S.**, Kim, MJ. **2024**. Elderly-targeted a branched-chain amino acid-enriched snack incorporated with fermented wheat bran: Assessment on physicochemical and sensory characteristics. *LWT*, 116364
- **6.** Douglas, S.L., Bernadez-Morales, G.M., Nichols, B.W., Johnson, G.F., Barahona-Dominguez, L.S., Jessup, A.P., Ball, J.J., **Cho, S.**, Sawyer, J.T. **2024**. Inclusion of Beef Heart in Ground beef patties alters quality characteristics and consumer acceptability as assessed by the application of electronic nose and tongue technology. *Foods*, 13, 811.\**15 pages*
- 7. Nichols, B.W., Douglas, S.L., Bernadez-Morales, G.M., Johnson, G.F., Barahona-Dominguez, L.S., Hayden, M.D., Belk, A.D., Ball, J.J., **Cho, S.**, Sawyer, J.T. **2024**. Assessing Pork Quality during Retail Storage using Objective Measurements, *Journal of Food Science and Nutrition Research*, 7, 157-169.
- **8.** Fennell, K., Fehlberg, J., Singh, S., Matuna, L.M., Cho, S., Almenar, E. **2024**. Consumers' behavior toward packaging containing agricultural waste as a plastic filler for food: an exploration study. *Sustainability*, 16, 1126.\*22 pages
- **9.** Williams, R., Moazzem, M.S., Dees, J., Hayden, M., **Cho, S. 2023**. Acceptability of zero-sugar added pound cakes under blind and informed testing conditions, *Journal of Food Science*, 88, 4677-4692.
- **10.** Kim, W., Lee, D., Wu, G., Cha, L., Moazzem, M.S.\*, **Cho, S.**, Kim, D-J. **2023**. Molecularly imprinted chemiresistive sensor for specific recognition of furaneol as a biomarker of strawberry flavor conditions, *ACS Sensors*, 4, 1542-1549.

- 11. Cho, S. Moazzem, S. 2022. Review. Recent applications of potentiometric electronic tongue and electronic nose in sensory evaluation. *Preventive Nutrition and Food Science*. 27,1-11.
- **12.** Muenprasitivej, N., Tao, R., Nardone, S. J., **Cho, S. 2022**. The effect of steviol glycosides on sensory properties and acceptability of ice cream. *Foods*, 11, 1745.\*15 pages
- 13. Balan, V., Novak, D., Knudson W., Jones D. A., Auras, R., Cho, S., Rodgers, A., Ubanwa, B. 2021. Nutritious mushroom protein crisp-healthy alternative to starchy snack. Food Production, Processing and Nutrition, 3,33.\*15pages
- **14.** Tao, R., **Cho, S**. 2020. Consumer-based sensory characterization of steviol glycosides (Rebaudioside A, D, and M). *Foods*, 9, E1026 \*15 pages
- **15.** Szczygiel, E.J., **Cho, S.**, Tucker, R.M. 2019. The effect of sleep curtailment on hedonic responses to liquid and solid food. *Foods*, 8, 465.
- **16.** Szczygiel, E.J., **Cho, S.**, Snyder, M.K., Tucker, R.M. 2019. Associations between chemosensory function, sweet taste preference, and previous night's sleep in non-obese males. *Food Quality Preference*, 75, 105-112.
- 17. Szczygiel, E.J., Cho, S., Tucker, R.M. 2019. Multiple dimensions of sweet taste perception altered after sleep curtailment. *Nutrients*, 11, 2015-2034.
- **18.** Szczygiel, E.J., **Cho, S.**, Tucker, R.M. 2018. Characterization of the relationships between sleep duration, quality, architecture and chemosensory function in non-obese females. *Chemical Senses*, 00, 1-6.
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# **SERVICE ACTIVITIES**

- 1. Institute of Food Technologists (IFT) Elwood Caldwell Fellowship Committee (2021-2022), IFT, Chicago, IL: Invited to serve as a member of the Committee
- 2. External Panel for the new MSc in Nutrition and Sensory Science for the School of Science in Galway-Mayo Institute of Technology (GMIT) in Ireland (May 2021): Invited to serve as an external panel for the review process and participated in a review process
- 3. Departmental Scholarship Committees [PS Scholarship and Elanco Scholarship Committees] (2020 Present), Poultry Science, Auburn University, Auburn, AL.
- 4. University Calendar Committee (2020 Present), Auburn University, Auburn, AL.
- 5. Food Science Club Advisor (2020 Present), Poultry Science, Auburn University, Auburn, AL.
- **6. Graduate Affairs Committee (2017 2019),** Food Science and Human Nutrition, Michigan State University, East Lansing, MI. \**Elected to serve as The Graduate Affairs Committee.*
- 7. Faculty Advisor of MSU Product Development Teams (2015 2019) & AU Product Development Teams (2021).
  - Advise the MSU and AU Product Development Teams for national food product development competitions. <u>Accomplishments</u>: The teams have received  $1^{st}$  place in the 2019 IFTSA MARS Product Development (PD) Competition,  $2^{nd}$  place in the 2016 and 2017 IFTSA MARS PD Competition and  $3^{rd}$  place in the 2018 IFTSA MARS PD Competition.
- 8. Director, Michigan State University Sensory Lab (2015 2019).

  Manage sensory lab, overseeing sensory facilities for classes and research; Bring in funds to help maintain facilities [Over \$90,000 since Fall 2015 by conducting sensory testing for industry]; Hire, train, and mentor
- 9. Food Science Curriculum Committee (2015 2019).

  Work on maintaining IFT accredited food science program at Michigan State University
- 10. Korean American Food Technologists Association (KAFTA)
  Treasurer and Research Paper Competition Chair (2016-2018), Secretary (2019-2020), Vice President (2021-2022), President (2023-2024)
  - Fundraising ( $$10,000 \sim $12,000$  in 2023 and 2024), Organizing annual KAFTA Meetings (online and inperson meetings) and Research paper competition.
- 11. Research Mentor (2012 present).

Food Science and Dietetic students

- Mentor graduate students and visiting students/scholars from Turkey, Korea, Uruguay, Columbia, Czech Republic, Taiwan, and France
- Voluntary undergraduate research project (2016, 2017), CANR Undergraduate Research Program (2015) at Michigan State University.

# Affiliations

- 1. Korean American Food Technologists Association
  - President (2023-2024); Vice President (2021-2022); Secretary-Treasurer (2019-2020); Chair, Research Paper Competition (2016-2018); Regular Member (2012-2015)
- 2. Society of Sensory Professionals: Regular Member (2015-present)
- 3. Institute of Food Technologists: Student, Regular, Professional Member (2006-present)
- 4. Korean-American Scientists and Engineers Association: Regular Member (2013-present)