

Suzanne D. Johanningsmeier

Professional Experience

Research Food Technologist, GS-14, 2019-present, USDA-ARS, Food Science and Market Quality & Handling Research Unit, Raleigh, NC & Lead Scientist 2020-present

Adjunct Associate Professor, 2018-present, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC

Research Food Technologist, GS-13, 2014-2019, USDA-ARS, Food Science Research Unit, Raleigh, NC

Adjunct Assistant Professor, 2011-2018, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC

Research Food Technologist, GS-12, 2011-2014, USDA-ARS, Food Science Research Unit, Raleigh, NC

Designs, conducts and communicates research to develop the scientific basis for new processes that improve product quality and healthfulness, reduce waste, and advance the science of fruit & vegetable preservation. Current research includes characterization of the chemical, physical and sensory properties of fermented and acidified vegetables and sweetpotato products, fermentation biochemistry, salt reduction in vegetable brining, and metabolite profiling of plant-based foods.

Chemical and Sensory Analysis Research

Biological Sciences Laboratory Technician, 2002-2011, USDA-ARS Food Science Research Unit, Raleigh, NC
Research Technician, Food Science Department, 2000-2002, North Carolina State University, Raleigh, NC

Conducted research related to chemical and sensory properties of fermented, acidified, and minimally processed vegetables including, sour taste chemistry; reduction of salt used for sauerkraut fermentation; sensory properties of process-ready fermented cucumber products; and fresh-cut sweet potato processing and shelf-life.

- Experimental design, chemical, sensory, & statistical analyses
- Method development, operation, maintenance, and user training on GC×GC-TOFMS for metabolite analysis
- Method development, operation, maintenance, and user training for HPLC systems
- Recruitment, selection, training, and management of individuals for descriptive sensory analysis
- Creation, organization and maintenance of a food-grade laboratory

Lactic Acid Fermentation of Vegetables

Graduate Research Assistant, 1995-1999, Food Science Department, North Carolina State University, Raleigh, NC

Development and Documentation of a HACCP Plan for Fresh Cut Fruits and Vegetables

Consultant, summer 1995, Indianapolis Fruit, Indianapolis, IN

Food Product Development

Intern in Food Technical Service Group, Summer 1994, A. E. Staley Manufacturing Co., Decatur, IL

Laboratory and Pilot Plant Operation and Maintenance

Laboratory Technician, 1992-1994, Food Science Pilot Plant, Purdue University, West Lafayette, IN

Education

Doctorate of Philosophy in Food Science, Nutrition minor, 2011, North Carolina State University, Raleigh, NC

Dissertation: Biochemical characterization of fermented cucumber spoilage using non-targeted, comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry: Anaerobic lactic acid utilization by lactic acid bacteria

Master of Science in Food Science, Biochemistry minor, 1999, North Carolina State University, Raleigh, NC

Thesis: Malolactic activity of lactic acid bacteria and its effect on sensory and chemical properties of fermented cabbage

Bachelor of Science with Distinction in Food Science, 1995, Purdue University, West Lafayette, IN

Honor's thesis: Grape skin contact time effects resveratrol concentration in *Chambourcin* wine

Special Research project: Evaluation of P-3 oxonia as a sterilizing agent for aseptic bulk storage tanks

Outreach and Mentoring Activities

Invited lecturer (2009-present), Department of Food, Bioprocessing and Nutrition Sciences, NC State, Raleigh, NC, Developed and instructed students in a series of lectures and group activities in experimental design and data analysis for undergraduate senior design course, FS/BBS 475 Problems and Design in Food and Bioprocessing Science

Scientific Advisor for 34 Graduate Student Committees, chair or co-chair of 10 MS and 3 PhD committees and member of 21 additional committees in Food Science, Horticulture, and Nutrition. North Carolina State University (2011-present)

1890's National Scholar Program Mentor (Summer 2021)

Research Mentor for 31 Undergraduate Students in Independent Research Projects (2011-2019) Undergraduate researchers were assigned project topics related to the core mission of the USDA-ARS Food Science Research Unit.

Peach State Louis Stokes Alliance for Minority Participation Program Research Mentor (Summer 2019)

Ronald E. McNair Post-baccalaureate Achievement Program Mentor (2018-2019), The McNair Scholars program is designed to prepare undergraduate students (first generation college students with financial need or members of an underrepresented group with strong academic potential) for doctoral studies through involvement in research and other scholarly activities.

USDA Associate Professor, (2018-present), Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC

Full Member of the Graduate Faculty (USDA special faculty), North Carolina State University, 2016-present

Invited lecturer (2012-2018), Acidified Foods GMP School, USDA-ARS & NCSU Department of Food, Bioprocessing and Nutrition Sciences, Raleigh, NC. Presented two sections, 'pH, buffers and acidification methods and measurement of pH and acidity'

USDA Assistant Professor, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC 2011-2018

Invited lecturer (2012-2013, 2016, 2017), Department of Food, Bioprocessing and Nutrition Sciences, NC State, Raleigh, NC, Presented 'Biochemical characterization of fermented cucumber spoilage using non-targeted GCxGC-ToFMS' presented in FS403 Food Analysis

Associate Member of the Graduate Faculty (USDA special faculty), North Carolina State University, 2012-2016

Research Mentor (2012-2014), FS 495 Research Experience in Food and Bioprocessing Sciences, Department of Food, Bioprocessing and Nutrition Sciences, NC State, Raleigh, NC

Invited lecturer (2009-2013), Department of Food, Bioprocessing and Nutrition Sciences, NC State, Raleigh, NC, Presented 'Metabolomic Technologies for Food and Nutrition Research' as an invited lecture in the Nutraceuticals & Functional Foods course

Mentor (2010), Department of Food, Bioprocessing and Nutrition Sciences, NC State, Raleigh, NC, Directed undergraduate student research, 'Derivatization and analysis of standard compounds by GC×GC-TOFMS'

Graduate teaching assistant (2007-2008), Department of Food, Bioprocessing and Nutrition Sciences, NC State, Undergraduate senior design course, Problems and Design in Food and Bioprocessing Science, Developed a series of lectures and group activities in experimental design and data analysis, Critiqued weekly oral and written updates, Provided assistance to project teams with experimental design and statistical analysis, Faculty mentors: Dr. Brian Farkas and Dr. Lynn Turner

Graduate teaching assistant (1996), Department of Food Science, NC State, Raleigh, NC, Undergraduate course in Food Analysis, Prepared lab activities, graded lab reports, and presented carbohydrate analysis lectures, Faculty mentor: Dr. George Catignani

Honors & Awards

Accomplishment Award, USDA-ARS, SEA, Food Science and Market Quality & Handling Research Unit, 2023

Outstanding Volunteer Award, Food Chemistry Division, Institute of Food Technologists, 2021-2022

Accomplishment Award, USDA-ARS, SEA, Food Science and Market Quality & Handling Research Unit, 2022

Accomplishment Award, USDA-ARS, SEA, Food Science and Market Quality & Handling Research Unit, 2021

Outstanding Performance Award, USDA-ARS, SEA, Food Science and Market Quality & Handling Research Unit, 2020

Outstanding Performance Award, USDA-ARS, Southeast Area, Food Science Research Unit, 2019

Outstanding Performance Award, USDA-ARS, Southeast Area, Food Science Research Unit, 2017

Outstanding Section Volunteer, Dogwood Section, Institute of Food Technologists, 2017

Outstanding Performance Award, USDA-ARS, Southeast Area, Food Science Research Unit, 2016

Outstanding Performance Award, USDA-ARS, Southeast Area, Food Science Research Unit, 2015

LEAD 360 cohort, Selected as one of 20 emerging global leaders in Food Science & Technology, Institute of Food Technologists, 2014

Technology Transfer Award, USDA-ARS, South Atlantic Area, For commercial scale inception of the newly developed sodium chloride free cucumber fermentation technology, 2014

Outstanding Service to the Club, Food Science Club at North Carolina State University, 2012

Outstanding Graduate Teaching Assistant, North Carolina State University, 2009

Extra Effort Award, USDA-ARS, Food Science Research Unit, For significant contributions to the successful NRI grant proposal to study the chemical basis for the sour taste of organic acids, 2004

Gamma Sigma Delta, inducted in 1998

Phi Tau Sigma, Lifetime Professional Member, inducted in 1995

Phi Beta Kappa, inducted in 1995

Membership in Professional Organizations

Institute of Food Technologists, 1992-present

Phi Tau Sigma, Lifetime Member, 1995-present

American Chemical Society, 2009-2020

Metabolomics Society, 2012-2016

American Association for the Advancement of Science, 2012-2013

Scholarly Activity - Other

Peer review for journal articles in food science and related fields (17 Journals)

Abstracts Review, North Carolina Association of Family & Consumer Sciences, 2022

Abstracts Review, Institute of Food Technologists Food Chemistry & Fruits & Vegetables Divisions, 2021

Book Chapter Review, ACS Books, Natural and Bio-Based Antimicrobials for Food Applications, 2018

Abstracts Review, Institute of Food Technologists Food Chemistry Division, 2016

Abstracts Review, Institute of Food Technologists Functional Foods Division, 2016

Abstracts Review, Institute of Food Technologists Food Chemistry Division, 2015

Abstracts Review, Institute of Food Technologists Fermented Foods Division, 2011

Session Co-chair, Experimental Biology, Bioactives Research Interest Group, Washington DC, 2011

Professional Development & Continuing Education

20th International GC×GC Symposium, Canmore, Alberta, Canada, May 28 - June 1, 2023

Pegasus HRT⁺ Training, St. Joseph, MI, July 25-29, 2022; and Raleigh, NC, December 13-15, 2022

19th International GC×GC Symposium & Advanced GC×GC Course, Virtual, May 29 – June 2, 2022

Advances in Food Process Engineering Seminar Series, FS623- NC1023 multi-institutional course, Spring 2022

18th International GC×GC Symposium, Virtual, June 7-11, 2021

Electron Microscopy, BCH 710, North Carolina State University, Spring 2020

Operation and Maintenance of Ultra High Pressure Liquid Chromatography – Triple Quadrupole Mass Spectrometer (UHPLC-QQQ-MS) – Three-day hands-on training course, 2016

Pathway Tools, Metabolomics Society Annual Meeting, Workshop, 2015

USDA-ARS Grantsmanship Fundamentals Course, 2014

Flavor Interactions in Foods, Institute of Food Technologists, Chicago, IL, Completed 2-day Shortcourse, 2013

Institute of Food Technologists, 2011-2023, Attended 12 regional and 9 national meetings

Research Agreements, Grants, & Awards

(\$2,746,028 total funding; \$ 722,191 Johanningsmeier)

Johanningsmeier SD (Co-PI) and Simunovic J. 2020-2023. Advanced Processing Technology for Quality Enhancement and Shelf Life Extension of Acidified Pepper Products. Pickle Packers International, Inc. \$17,667. (50 %)

Yencho GC, Pecota K, and **Johanningsmeier SD (Sub-award).** 2020-2023. **Rapid Development and Commercialization of Sweetpotato Varieties for Food Processing.** McCain Foods. \$275,000. (10 %)

Yencho GC, Pecota K, and **Johanningsmeier SD (Sub-award).** 2020-2023. **Variety Development and Post-Harvest Research to Improve Sweetpotato Processing Quality.** Lamb Weston. \$104,907. (14 %)

Johanningsmeier SD (Lead PI), Pérez-Díaz IM, and Breidt F. 2019-2024. **Biochemical and Physico-chemical Analyses of Pickled Vegetable Samples to Support Stakeholders' Troubleshooting and Processing Activities.** Pickle Packers International, Inc. \$178,053. (80 %)

Breidt F and **Johanningsmeier SD (Co-PI).** 2019-2022. **Hops as a Natural Antimicrobial in Pickled Vegetables.** Cooperative Research and Development Agreement with Beta Tec. \$ 86,702. (50 %)

Pérez-Díaz IM and **Johanningsmeier SD (Co-PI).** 2017-2019. **Prediction chart for fermented cucumber damage induced by freezing and salting.** Pickle Packers International, Inc. \$33,330. (50 %)

Breidt F and **Johanningsmeier SD (Co-PI).** 2017-2019. **Quality and safety of refrigerated cucumber pickles produced with a brief blanching step to reduce background microbiota.** Pickle Packers International, Inc. \$ 27,775. (50 %)

Yencho GC (PI), Pecota K, Truong VD, and **Johanningsmeier SD.** 2016-2020. **Development and evaluation of sweetpotato cultivars for improved chip processing.** Pepsico. \$1,227,739. (10 %)

Komarnytsky S and Li X (Co-PIs), Foegeding EA, Barrangou R, Harris GK, **Johanningsmeier SD**, Goodell S, Esposito D, Moriel P, and DeGezelle J. 2015-2017. **Bitter-tasting prebiotics for gastrointestinal and metabolic health.** Plants for Human Health Institute (PHHI) Seed Funding Program. \$200,000. (5 %)

Johanningsmeier SD. 2015. **Evaluation of pectin methylesterase (PME) as a firming agent for production of fresh-pack cucumber pickles.** Pinnacle Foods. \$9,800. (100 %)

Johanningsmeier SD (Lead PI), Pérez-Díaz IM, and Breidt F. 2014-2019. **Biochemical and microbiological analyses of pickled vegetable samples to facilitate technology transfer and address stakeholders' troubleshooting and processing needs.** Pickle Packers International, Inc. \$131,055. (80 %)

Pérez-Díaz IM (PI), **Johanningsmeier SD**, and Breidt F. 2014-2016. **Incorporation of Probiotic Cultures in Commercial Refrigerated Cucumber Products.** Chicago Pickle Company. \$22,100. (40 %)

Johanningsmeier SD. 2013-2016. **Impact of Commercial Processing variables on Texture Quality of Pickles Produced using Environmentally-Friendly Calcium Chloride Fermentation.** Mt. Olive Pickle Company. \$75,900. (100 %)

Johanningsmeier SD. 2013. **Influence of starter cultures on the volatile profiles of fermented vegetative matter.** University of Delaware. \$6,000. (100 %)

Breidt F, **Johanningsmeier SD**, and Pérez-Díaz IM. 2011-2021. **Research relevant to the improvement of pickling technologies, and the quality and safety of finished products.** Pickle Packers International, Inc. \$350,000. (33 %)

Material Transfer Agreements and No Cost Collaborations:

Breidt F, **Johanningsmeier SD**, Chung C, and Brehm-Stecher B. 2017-2019. **Evaluation of Hops Extracts, Garlic Oil and Related Natural Antimicrobials and Methods of Preparation to Enhance Antimicrobial Activity in Fermented and Acidified Vegetable Products.** Sejong University, Seoul, South Korea, and Iowa State University, Ames, IA. Material Transfer Research Agreement.

Johanningsmeier SD. 2017. **Transfer of preserved cucumbers with an unusual off-flavor for evaluation by electronic nose technology.** Alpha MOS, Hanover, MD. Material Transfer Agreement.

Safferman S, Knudson W, Joshi S, Pérez-Díaz IM, **Johanningsmeier SD**, and Breidt F. 2016-2019. **Agricultural waste diversion to high-value resources.** Rackham Foundation, \$90,000 to Michigan State University. Serving as no cost collaborator.

Johanningsmeier SD. 2016. **Transfer of USDA-ARS *Lactobacillus buchneri* strains to Dr. Mathews for research to study the batch kinetics and develop continuous fermentation data using different biomass and waste materials as substrates.** Department of Civil Engineering, Kansas State University, Manhattan, KS. Material Transfer Agreement.

Johanningsmeier SD. 2014. **Transfer of USDA-ARS *Lactobacillus rahi* strains to Dr. Grabherr for research to transfer the genes responsible for metabolism of 1,2-propanediol to propionic acid into *Lactobacillus buchneri*.** Department of Genetically Engineered Lactic Acid Bacteria, University of Natural Resources and Life Sciences, Austria. Material Transfer Agreement.

Johanningsmeier SD and Perez-Diaz IM. 2013. **Transfer of DNA from USDA-ARS *Lactobacillus buchneri* strains to Dr. Barrangou for research to characterize CRISPR systems in lactic acid bacteria.** Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC. Material Transfer Agreement.

Extension and Engagement with Stakeholders

Scientific Advisor. 2011-present. Manufacturing and Technology Committee, Pickle Packers International Inc., Washington, DC

Technical Support for the Pickling Industry. 2012-present. (Provided frequent consulting via phone and email for ~47 local, national, and international companies).

Delivered 18 Invited Scientific Presentations. 2011-present. Pickle Packers International Meetings.

Site visit. November 2023, pickle processing facilities in Texas, USA.

Triangle Fermentation Festival. 2019, 2021. Served as an expert in vegetable fermentations for the 'Ask an Expert' Booth.

Trainer for the RTBfoods project sensory workshop – invited for expertise in descriptive sensory analysis of sweetpotato products, Kampala and Kawanda, Uganda, Africa. September 17-21, 2018 & August 23-30, 2019.

Invited lecturer. 2012-2018, annually. Acidified Foods GMP School, USDA-ARS & NCSU Department of Food, Bioprocessing and Nutrition Sciences, Raleigh, NC. Presented two sections, 'pH, buffers and acidification methods and measurement of pH and acidity.' Provided training for hundreds of participants (entrepreneurs, industry professionals, and regulatory agencies) to comply with the U.S. acidified foods regulations. Provided supplemental tours of USDA-ARS laboratories and FBNS fruit and vegetable pilot plant with discussion of pickled vegetable research for participants in the Acidified Foods GMP School.

Led the USDA-ARS Future Research Brainstorming Session. 2018. Pickle Packers International Spring Meeting, Pittsburgh, PA, April 17-19.

Host. 2012-2018, 2022-present. Hosted numerous informational visits and laboratory tours for international and national industry professionals interested in acidification and fermentation preservation technologies.

Consulted with regional (NC), national (MI), and international (Lebanon) stakeholders for the successful implementation of in-house polygalacturonase testing of recycled fermentation brines.

Met with a German delegation of manufacturers of pickled vegetables products, arranged in conjunction with Pickle Packers International and BOGK to facilitate the exchange of research and information with regard to quality of pickled vegetable products, Raleigh, NC, 2016.

"Science of Sour" event, Museum of Life & Sciences, Durham, NC, **Led, coordinated & conducted** Food Science Research Unit activities for engaging the public in the science of pickling, 2015

Invited site visits to pickled cucumber processors in Germany and Ukraine, April 2013, Invited by Rijk Zwann for expertise in fermentation technology.

Site visits. July 2013, 3 pickle processing facilities in Michigan, USA.

Research symposium and brainstorming session, 2012, Co-hosted and organized event for USDA-ARS Food Science Research Unit and Pickle Packers International Manufacturing and Technology Committee, Raleigh, NC.

Non-funded Cooperative Agreements for Commercial Scale Trials:

Johanningsmeier, S.D. 2018-2019. **Influence of Raw Cabbage Characteristics on Sauerkraut Fermentation and Quality.** OlyKraut, Olympia, WA.

Pérez-Díaz IM, **Johanningsmeier SD,** and Breidt F. 2017-2019. **Evaluation of a modified bag-in-box technology for cucumber fermentation.** Texas Tito's, New Braunfels, TX and Michigan State University, East Lansing, MI.

Pérez-Díaz IM and **Johanningsmeier SD.** 2011-2014. **Fermentation of cucumbers in calcium chloride brines.** Mount Olive Pickle Company, Mount Olive, NC. Non-Funded Cooperative Agreement.

Pérez-Díaz IM and **Johanningsmeier SD**. 2012-2013. **Process-Ready Preservation of Cucumber**. Mount Olive Pickle Company, Mount Olive, NC, and Marcatus QED, Ontario, Canada.

Service Activities

Service to Professional Societies and National Initiatives

Institute of Food Technologists, Food Chemistry Division, **Member-at-Large** 2019-2021, 2022-2023; **Secretary** 2021-2022

Institute of Food Technologists, 'The Pitch' Competition, **Judge**, 2023

Institute of Food Technologists, Regional College Bowl Competition, **Judge**, 2019, 2021, 2022, 2023

Institute of Food Technologists, Food Chemistry Division, Graduate Research Oral Competition, **Judge**, 2019-2023

USDA-ARS Achieve, Stage 1, **Participant**, 2021

USDA-ARS Research Position Evaluation System, **In-depth Reviewer & Panelist**, 2019, 2020, 2021

National Institute of Food and Agriculture (NIFA), Agriculture and Food Research Initiative (AFRI), **Panelist** – evaluated research proposals for scientific quality, feasibility, and relevance to program priorities, 2018, 2019-2020

Institute of Food Technologists Dogwood Section, **Past President**, 2016-17

Phi Tau Sigma NC State Chapter, **President**, 2016-17

Institute of Food Technologists Dogwood Section, **Scholarship Jury**, 2017

Institute of Food Technologists Dogwood Section, **President**, 2015-16

Phi Tau Sigma NC State Chapter, **Vice-President**, 2015-16

Institute of Food Technologists Dogwood Section, **Scholarship Jury**, 2016

Institute of Food Technologists Dogwood Section, Fall Meeting & Industry Tour, Co-hosted with S&D Coffee & Tea, **Program Organizer**, 2015

Institute of Food Technologists Dogwood Section, Fermented Foods Symposium, Co-hosted with the Department of Food, Bioprocessing and Nutrition Sciences, **Program Organizer**, 2015

Institute of Food Technologists Dogwood Section, **Chair-Elect**, 2014-15

Phi Tau Sigma NC State Chapter, **Secretary**, 2014-15

Phi Tau Sigma NC State Chapter, **Counselor**, 2013-13

Phi Tau Sigma NC State Chapter, **Alternate Counselor**, 2012-13

IFT Cares: Feeding America Volunteer Initiative, Chicago, IL, **Volunteer**, 2010

IFT Cares: Feeding America Volunteer Initiative, New Orleans, LA, **Volunteer**, 2008

Service to USDA-ARS Raleigh Location and NC State University

FBNS Doctoral Written Preliminary Exam Committee, **Chair**, 2014-present, **Chemistry Discipline Chair**, 2011-2014

Department of Food, Bioprocessing and Nutrition Sciences, **Faculty mentor**, 2021-2022

Goodness Grows in the Carolinas – A symposium focusing on Advances in Sweetpotato Research and Processing through Public and Private partnership, USDA-ARS, **Organizing Committee Member**, 2021

18th John L. Etchells Memorial Lecture, **Organizer**, Dr. Pieter C. Dorrestein as invited lecturer, 2019

North Carolina State University Graduate Student Research Symposium, **Judge**, 2014-2017, 2019

17th John L. Etchells Memorial Lecture, **Organizer**, Dr. David A. Mills as invited lecturer, 2017

16th John L. Etchells Memorial Lecture, Co-hosted Dr. Vijay K. Juneja as invited lecturer, 2015

USDA-ARS Raleigh Location, African American Observance, Assisted in co-hosting event organized by the Food Science Research Unit, 2015

USDA-ARS Raleigh Location, Women's History Observance, Contributor, 2015

FBNS Graduate Program Committee, Member 2013-2015, and 2006-2007

USDA-ARS Raleigh Location, Native American Observance, Contributor, 2011, 2012, 2014

15th John L. Etchells Memorial Lecture, Co-hosted Dr. Antonio Garrido as invited lecturer, 2013

USDA-ARS Raleigh Location, Women's History Observance, Contributor to event organized by the Food Science Research Unit, 2012, 2013

USDA-ARS Food Science Research Unit, **Organizer** and **leader** for a teambuilding luncheon, including activities developed to promote positive communication and peer appreciation, 2012

Graduate Women in Science Program, NC State Chapter, **Grant reviewer**, 2012

The National Society for Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS), NC State Chapter, Invited **Career Panel Member**, 2012

USDA-ARS Raleigh Location, Asian Pacific Observance, Contributor, 2012

USDA-ARS Raleigh Location, Hispanic Heritage Observance, Contributor, 2011

FBNS Social and Recreation Committee, Member 2011-12, and 2005-06

FBNS Library Representative, 2010-11

FBNS Recruiting Committee, 2007-10

FBNS Graduate Student Host 2008-09

FBNS Undergraduate Program Committee 2007-08

Publications (54)

*Designates corresponding author; Authors' names in italics signify students or scientists advised, co-advised, or mentored in research by Johanningsmeier

Peer Reviewed Journal Articles (49)

*Fan X, Johanningsmeier SD**, Schultheis J, Starke K, Osborne JA, and Collins M. **Cucurbitacin distribution and stability in bitter and non-bitter pickling cucumber during fermentation and acidification**. Journal of Food Composition & Analysis. *Published online 2/29/2024.*

George J*, Reddy G, Wadl P, Rutter W, Culbreath J, Lau PW, Rashid T, *Allan, MC, Johaningsmeier SD*, Nelson AM, Wang ML, Gubba A, Ling K-S, Meng Y, Collins DJ, Ponniah SK, Gowda PH. 2024. **Sustainable Sweetpotato**

Production in the United States: Current Status, Challenges, and Opportunities. *Agronomy Journal*. Published online 2/1/2024.

Milhem F, *Hamilton LM*, Skates E, Wilson M, **Johanningsmeier SD**, and Komarnytsky S*. 2024. **Molecular insights into obesity resistance include biomarkers of muscle fiber dynamics and mitochondrial adaptation to high dietary fats.** *Metabolites* 14:69. <https://doi.org/10.3390/metabo14010069>.

*Allan M**, **Johanningsmeier SD**, Nakitto M, Guambe O., Abugu M, Pecota K, and Yencho GC . 2024. **Baked Sweetpotato Textures and Sweetness: An Investigation into Relationships Between Intrinsic and Cooked Attributes.** *Food Chemistry X* 21: 101072. <https://doi.org/10.1016/j.fochx.2023.101072>.

Uppili B, LaFountain LJ, and **Johanningsmeier SD***. 2023. **A sensory lexicon to characterize the quality of fresh and preserved peppers.** *Journal of Food Science* 88 (12): 5216-5235. <https://doi.org/10.1111/1750-3841.16814>.

*Trandel-Hayes M**, **Johanningsmeier SD**, Oh H-D, Iorizzo M, and Perkins-Veazie P*. 2023. **Blueberry cell wall composition helps to explain fruit firmness phenotypes.** *ACS Food Science & Technology* 3(11): 1920-1930. <https://doi.org/10.1021/acscfoodscitech.3c00284>.

Pérez-Díaz IM*, Page CA, Mendez-Sandoval L, and **Johanningsmeier SD**. 2023. ***Levilactobacillus brevis*, autochthonous to cucumber fermentation, is unable to utilize citric acid and encodes for a putative 1,2-propanediol utilization microcompartment.** *Frontiers in Microbiology* 14:1210190. <https://doi.org/10.3389/fmicb.2023.1210190>.

Nakitto M, Ssali RT*, **Johanningsmeier SD**; Moyo M, deKock H, Berget I, Okello JJ, Mayana S, Tinyiro SE, Mendes T, Benard Y, Chelengat D, Osaru F, Bugaud C. 2023. **Decision tree scoring system to guide selection for consumer preference in sweetpotato breeding trials.** *Journal of the Science of Food and Agriculture*. <https://doi.org/10.1002/jsfa.12883>.

Weissburg JR, **Johanningsmeier SD**, and Dean LL*. 2023. **Volatile Compound Profiles of Raw and Roasted Peanut Seeds of the Runner and Virginia Market types.** *Journal of Food Research* 12(3). <https://doi.org/10.5539/jfr.v12n3p47>.

*Allan M**, Read QD and **Johanningsmeier SD**. 2023. **Impact of sweetpotato starch structures, thermal properties, and granules sizes on sweetpotato fry textures.** *Food Hydrocolloids* 137, Article 108377. <https://doi.org/10.1016/j.foodhyd.2022.108377>

Pérez-Díaz IM*, Hayes J, Medina E, Page CA, **Johanningsmeier SD**, *Daughtry KV*, Moeller L, and *Fornea DS*. 2022. **Prevention of microbial spoilage in sodium chloride-free cucumber fermentations employing preservatives.** *Journal of Food Science* 87:5054–5069. <http://dx.doi.org/10.1111/1750-3841.16345>

*Allan M** and **Johanningsmeier SD**. 2022. **Sweetpotato chip texture and fat content: effects of enzymatic modification of cell wall polymers.** *Journal of Food Science* 87:3995–4008. <http://doi.org/10.1111/1750-3841.16267>

*Nakitto M**, **Johanningsmeier SD**, Moyo M, Bugaud C, de Kock H, Dahdouh L, Forestier-Chiron N, Ricci J, Khakasa E, Ssali RT, Mestres C, and Muzhingi T. 2022. **Sensory guided selection criteria for breeding consumer-preferred sweetpotatoes in Uganda.** *Food Quality and Preference* 101, Article 104628. <https://doi.org/10.1016/j.foodqual.2022.104628>

LaFountain L, **Johanningsmeier SD***, Breidt F, Stoforos G, and Price R. 2022. **Effects of a brief blanching process on quality, safety, and shelf life of refrigerated cucumber pickles.** *Journal of Food Science* 87: 1475–1488. <https://doi.org/10.1111/1750-3841.16112>.

Moore JF, DuVivier R, and **Johanningsmeier SD***. 2022. **Changes in the free amino acid profile of pickling cucumber during lactic acid fermentation.** *Journal of Food Science* 87: 599–611. <http://doi.org/10.1111/1750-3841.15990>.

Allan M, Marinos N, **Johanningsmeier SD***, *Sato A*, and Truong VD. 2021. **Relationships between isolated sweetpotato starch properties and textural attributes of sweetpotato French fries.** *Journal of Food Science* 86 (5): 1819-1834. <http://dx.doi.org/10.1111/1750-3841.15725>.

Trandel-Hayes M*, Johanningsmeier SD, Schultheis J, Gunter C, and Perkins-Veazie P. 2021. **Cell wall polysaccharide composition of grafted ‘Liberty’ watermelon with reduced incidence of hollow heart defect.** *Frontiers in Plant Science* 12:623723. <https://doi.org/10.3389/fpls.2021.623723>.

Fideler J, DuVivier R, and Johanningsmeier SD*. 2021. **Formation of γ -aminobutyric acid (GABA) during the natural lactic acid fermentation of cucumber.** *Journal of Food Composition & Analysis* 96: Article 103711. <https://doi.org/10.1016/j.jfca.2020.103711>.

Dery EK, Carey EE, Ssali RT, Low JW*, Johanningsmeier SD, Oduro I, Boakye A, Omodamiro RM, Yusuf HL. 2021. **Sensory characteristics and consumer segmentation of fried sweetpotato for expanded markets in Africa.** *International Journal of Food Science & Technology* 56: 1419–1431. <https://doi.org/10.1111/ijfs.14847>.

Mwanga ROM*, Mayanja S, Swanckaert J, Nakitto M, zum Felde T, Grüneberg W, Mudege N, Moyo M, Banda L, Tinyiro SE, Kisakye S, Bamwirire D, Anena B, Bouniol A, Magala DB, Yada B, Carey E, Andrade M, Johanningsmeier SD, Forsythe L, Fliedel G, and Muzhingi T. 2021. **Development of a food product profile for boiled and steamed sweetpotato in Uganda for effective breeding.** *International Journal of Food Science & Technology* 56: 1385–1398. <https://doi.org/10.1111/ijfs.14792>.

Pérez-Díaz IM*, Johanningsmeier SD, Anekella K, Pagán-Medina CG, Méndez-Sandoval L, Arellano C, Price R, Daughtry KV, Borges M, Bream C, Connelly L, Dieck SE, Levi MT, McMurtrie EK, Smith RE, Theora JC, Wendland P, Gómez-Rodríguez F, and Arroyo-López FN. 2021. **Genotypic and phenotypic diversity among *Lactobacillus plantarum* and *Lactobacillus pentosus* isolated from industrial scale cucumber fermentations.** *Food Microbiology* 94: Article 103652.

Qiu X, Reynolds R, Johanningsmeier SD*, and Truong VD. 2020. **Rapid determination of free amino acids in sweetpotatoes by hydrophilic interaction liquid chromatography-mass spectrometry.** *Journal of Food Composition & Analysis* 92: Article 103552. <https://doi.org/10.1016/j.jfca.2020.103552>.

Price RE, Longtin M, Conley-Payton S, Osborne JA, Johanningsmeier SD, Bitzer D, and Breidt F*. 2020. **Modeling buffer capacity and pH in acid and acidified foods.** *Journal of Food Science* 85(4): 918-925. doi: 10.1111/1750-3841.15091.

Nethery MA, Daughtry KV, DeCrescenzo Henriksen E, Johanningsmeier SD, and Barrangou R*. 2019. **Comparative genomics of eight *Lactobacillus buchneri* strains isolated from food spoilage.** *BMC Genomics* 20: Article 902. doi:10.1186/s12864-019-6274-0.

McMurtrie EK, Johanningsmeier SD*, Price RE, and Breidt F. 2019. **Effect of brine acidification on fermentation microbiota and texture quality of cucumbers fermented in calcium chloride brines.** *Journal of Food Science* 84(5): 1129-1137.

Klevorn CM, Dean L*, and Johanningsmeier SD. 2019. **Metabolite Profiles of Raw Peanut Seeds Reveal Differences between Market-Types.** *Journal of Food Science* 84(3): 397-405.

Fideler J, Johanningsmeier SD*, Ekelöf M, and Muddiman DC. 2019. **Discovery and quantification of bioactive peptides in fermented cucumber by direct analysis IR-MALDESI mass spectrometry and LC-QQQ-MS.** *Food Chemistry* 271: 715-723. <https://doi.org/10.1016/j.foodchem.2018.07.187>.

Daughtry KV, Johanningsmeier SD*, Sanozky-Dawes R, Klaenhammer TR, and Barrangou R. 2018. **Phenotypic and genotypic diversity of *Lactobacillus buchneri* strains isolated from spoiled, fermented cucumber.** *International Journal of Food Microbiology* 280: 46-56.

Ding ZS, Johanningsmeier SD, Price R, Reynolds R, Truong VD, Conley Payton S, and Breidt F*. 2018. **Evaluation of nitrate and nitrite content in pickled fruit and vegetable products.** *Food Control* 90: 304-311.

McMurtrie EK and Johanningsmeier SD*. 2018. **Quality of Cucumbers Commercially Fermented in Calcium Chloride Brine for Reduced Environmental Impact.** Journal of Food Quality Article ID 8051435, 13 pages. DOI: <https://doi.org/10.1155/2018/8051435>.

Sato A, Truong VD*, Johanningsmeier SD, Reynolds R, Pecota K, and Yencho C. 2018. **Chemical Constituents of Sweetpotato Genotypes in Relation to Textural Characteristics of Processed French Fries.** Journal of Food Science 83(1): 60-73.

Ekelöf M, McMurtrie EK, Nazari M, Johanningsmeier SD, and Muddiman DC*. 2017. **Direct Analysis of Triterpenes from High-Salt Fermented Cucumbers Using Infrared Matrix-Assisted Lased Desorption Electrospray Ionization (IR-MALDESI).** Journal of the American Society for Mass Spectrometry (JASMS) 28(2): 370-375.

Barkley SL, Schultheis JR, Chaudhari S, Johanningsmeier SD, Jennings KM, Truong VD, and Monks DW*. 2017. **Yield and Consumer Acceptability of ‘Evangeline’ Sweetpotato for Production in North Carolina.** HortTechnology 27(2): 281-290.

Adidepe O, Johanningsmeier SD*, Truong VD, and Yencho C. 2016. **Development and validation of a near infrared spectroscopy method for prediction of acrylamide content in potato french fries.** Journal of Agricultural and Food Chemistry 64(8): 1850–1860.

Pérez-Díaz IM*, McFeeters RF, Moeller LA, Johanningsmeier SD, Hayes J, Fornea DS, Rosenberg L, Gilbert C, Custis N, Beene K, and Bass D. 2015. **Commercial scale cucumber fermentations brined with calcium chloride instead of sodium chloride.** Journal of Food Science 80(12):M2827-36.

Johanningsmeier SD* and McFeeters RF. 2015. **Metabolic footprinting of *Lactobacillus buchneri* strain LA1147 during anaerobic spoilage of fermented cucumbers.** International Journal of Food Microbiology 215:40-48.

Wilson EM, Johanningsmeier SD*, and Osborne JA. 2015. **Consumer acceptability of cucumber pickles produced by fermentation in calcium chloride brine for reduced environmental impact.** Journal of Food Science 80(6):S1360-S1367.

Breidt F*, Medina E, Huang H-Y, Wafa D, Franco W, Pérez-Díaz IM, Johanningsmeier SD and Kim JH. 2013. **Characterization of cucumber fermentation spoilage bacteria by enrichment culture and 16S rDNA cloning.** Journal of Food Science 78(3):M470-M476.

Johanningsmeier SD* and McFeeters RF. 2013. **Metabolism of lactic acid in fermented cucumbers by *Lactobacillus buchneri* and related species, potential spoilage organisms in reduced salt fermentations.** Food Microbiology 35(2):129-135.

Franco W, Pérez-Díaz IM*, Johanningsmeier SD and McFeeters RF. 2012. **Characteristics of spoilage-associated secondary cucumber fermentation.** Applied and Environmental Microbiology 78(4):1273-1284.

Johanningsmeier SD*, Franco W, Pérez-Díaz IM and McFeeters RF. 2012. **Influence of sodium chloride, pH, and lactic acid bacteria on anaerobic lactic acid utilization during fermented cucumber spoilage.** Journal of Food Science 77(7):M397-M404.

Johanningsmeier SD and McFeeters RF*. 2011. **Detection of volatile spoilage metabolites in fermented cucumbers using nontargeted, comprehensive 2-dimensional gas chromatography-time-of-flight mass spectrometry (GC×GC-TOFMS).** Journal of Food Science 76(1): C168-C177.

Neta ERD, Johanningsmeier SD, Drake MA, and McFeeters RF*. 2009. **Effects of pH adjustment and sodium ions on sour taste intensity of organic acids.** Journal of Food Science 74(4): S165-S169.

Da Conceicao Neta ER, Johanningsmeier SD, Drake MA, and McFeeters RF*. 2007. **A chemical basis for sour taste perception of acid solutions and fresh-pack dill pickles.** Journal of Food Science 72(6): S352-S359.

Johanningsmeier SD, McFeeters RF, Fleming HP*, and Thompson RL. 2007. **Effects of *Leuconostoc mesenteroides* starter culture on fermentation of cabbage with reduced salt concentrations.** Journal of Food Science 72(5): M166-M172.

Da Conceicao Neta ER, **Johanningsmeier SD**, and McFeeters RF*. 2007. **The chemistry and physiology of sour taste—A review**. *Journal of Food Science* 72(2): R33-R38.

Johanningsmeier SD, Fleming HP*, Thompson RL, and McFeeters RF. 2005. **Chemical and sensory properties of sauerkraut produced with *Leuconostoc mesenteroides* starter cultures of differing malolactic phenotypes**. *Journal of Food Science* 70(5):S343-S349.

Johanningsmeier SD, McFeeters RF*, and Drake MA. 2005. **A hypothesis for the chemical basis for perception of sour taste**. *Journal of Food Science* 70(2):R44-8.

Johanningsmeier SD, Fleming HP*, and Breidt F. 2004. **Malolactic activity of lactic acid bacteria during sauerkraut fermentation**. *Journal of Food Science* 69(8):M222-7.

Book Chapters (2)

Franco W, **Johanningsmeier SD***, Lu J, Demo J, *Wilson EM*, and Moeller LA. 2016. **Chapter 7: Cucumber Fermentation**. *Lactic Acid Fermentation of Fruits and Vegetables*, CRC Food Biology Series, Editor: Spiros Paramithiotis.

Pérez-Díaz IM*, Breidt F, Buescher RW, Arroyo-López FN, Jiménez-Díaz R, Fernández AG, Gallego JB, Yoon SS, and **Johanningsmeier SD**. 2015. **CHAPTER 51: FERMENTED AND ACIDIFIED VEGETABLES** in *Compendium of Methods for the Microbiological Examination of Foods*, 5th edition. (Published Online: December 17, 2013).

Invited Review Articles (2)

Johanningsmeier SD*, Harris GK, and *Klevorn CM*. 2016. **Metabolomic technologies for improving the quality of food: Practice and Promise**. *Annual Reviews in Food Science and Technology* 7:413-38. *Invited review*.

Johanningsmeier SD and Harris GK*. 2011. **Pomegranate as a functional food and nutraceutical source**. *Annual Reviews in Food Science and Technology* 2: 181-201.

Trade Journal Article (1)

Johanningsmeier SD, Thompson RL, and Fleming HP*. 2002. **BAG-IN-BOX TECHNOLOGY: Sensory quality of pickles produced from process-ready, fermented cucumbers**. *Pickle Pak Science* VIII (1):26-33.

Presentations

*Indicates senior author; Authors' names in italics signify students or scientists advised, co-advised, or mentored in research by Johanningsmeier

Published Abstracts (52)

Abugu M, **Johanningsmeier SD**, *Allan MC*, Iorizzo M, Pecota K, Yencho GC. 2024. **Comprehensive Two-Dimensional Gas Chromatography Reveals the Volatile Compounds Present in a Biparental Sweetpotato Mapping Population**. American Chemical Society ACS Spring 2024, New Orleans, LA, March 17-21.

*Allan MC**, **Johanningsmeier SD**, *Nakitto M*, *Guambe O*, *Abugu M*, Pecota KV, and Yencho GC . 2024. **Physicochemical factors that affect baked sweetpotato textures and sweetness**. American Chemical Society ACS Spring 2024, New Orleans, LA, March 17-21.

Pérez-Díaz IM*, PageCA, Mendez-Sandoval L, Pagán-Medina C, **Johanningsmeier SD**, Pan M, and Barrangou R. 2023. **Biodiversity and Biofunction of Lactic Acid Bacteria (LAB): Finding Isolates that Enhance & Enable Fermented**

Vegetable Products. 14th International Symposium on Lactic Acid Bacteria, Egmond aan Zee, the Netherlands, August 27-31.

*Nakitto M**, **Johanningsmeier SD**, Moyo M, and de Kock H. 2023. **A decision tree-based approach for enhancing demand-led sweetpotato breeding programs using sensory based screening tools.** 15th Pangborn Sensory Science Symposium: Meeting New Challenges In a Changing World, Nantes, France, August 20-24.

*Allan MC**, Ibrahim R, **Johanningsmeier SD**, Pecota KV, and Yencho GC. 2023. **Simultaneous prediction of beta-carotene, anthocyanins, and phenolics in sweetpotatoes by near-infrared spectroscopy.** ACS Fall 2023 Harnessing the Power of Data, American Chemical Society, San Francisco, CA, August 13-17.

Johanningsmeier SD*, *Nakitto M*, *Abugu M*, Khakasa E, *Allan MC*, Pecota K, Muzhingi T, and Yencho C. 2023. **Universal Sensory Lexicon for Profiling Sweetpotato Quality Traits: A Tool for Global Sweetpotato Research and Breeding.** Institute of Food Technologists Annual Meeting & Expo, Hybrid, Chicago, IL, July 16-19.

Johanningsmeier SD*, *Abugu M*, *Nakitto M*, *Allan M*, Pecota KV, and Yencho C. 2023. **The chemistry of sweetpotato flavors revealed with GC×GC high resolution mass spectrometry and descriptive sensory analysis.** 20th International GC×GC Symposium, Canmore, Alberta, Canada, May 28th – June 1st.

*Allan MC** and **Johanningsmeier SD**. 2022. **Impact of sweetpotato starch gelatinization profiles, amylopectin structures, and granules sizes on sweetpotato fry textures.** Cereals and Grains '22, Bloomington, MN, November 9-11.

Trandel-Hayse MA, Oh H, **Johanningsmeier SD**, Iorizzo M, and Perkins-Veazie P*. 2022. **Peel and pulp texture parameters are negatively correlated to pectin and cellulose content in ten highbush blueberry cultivars.** American Society for Horticultural Science Annual Conference, Chicago, IL, July 30 - August 3.

Uppili B, LaFountain LJ, and **Johanningsmeier SD***. 2022. **A lexicon to describe the aroma, flavor, and texture of fresh and processed peppers.** Institute of Food Technologists Annual Meeting, Hybrid, July 10-13.

*Nakitto M**, Bugaud C, de Kock H, Berget I, Moyo M, **Johanningsmeier SD**, Yada B, and Ssali RT. 2022. **Developing threshold values of analytical laboratory measures to guide screening for consumer preference in sweetpotato breeding trials.** The African Potato Association 12th Triennial Conference, Lilongwe, Malawi, June 27 - July 1.

Trandel-Hayse MA, Perkins-Veazie P*, Iorizzo M, and **Johanningsmeier SD**. 2021. **Method optimization and cell wall analysis for peel and pulp of blueberry cultivars.** XII International Society for Horticultural Science, International Vaccinium Symposium, Virtual, August 30 -September 1.

Trandel-Hayse MA, Perkins-Veazie P*, Iorizzo M, and **Johanningsmeier SD**. 2021. **Optimization of blueberry cell wall polysaccharide extraction: from grinding through hydrolysis.** American Society for Horticultural Science, Hybrid Conference, August 5-9.

Fan X, **Johanningsmeier SD***, Schultheis J, Starke K, and Collins M. 2021. **Cucurbitacin distribution and stability in bitter and non-bitter pickling cucumber during fermentation and acidification.** Institute of Food Technologists Annual Meeting, Virtual, July 19-21.

Moore JF, **Johanningsmeier SD***, and Pérez Díaz IM. 2021. **Enhancement of γ -aminobutyric Acid Content in Fermented Cucumber Pickles.** Institute of Food Technologists Annual Meeting, Virtual, July 19-21.

Trandel MA, **Johanningsmeier SD**, Gunter C, Schultheis J, and Perkins-Veazie P*. 2020. **Cell wall architecture in grafted and non-grafted ‘Liberty’ watermelon with hollow heart.** American Society for Horticultural Science, Virtual, August 9-13.

Trandel MA, **Johanningsmeier SD**, Perkins-Veazie P*. 2020. **Optimizing cell wall polysaccharide extraction for watermelon placental tissue.** American Society for Horticultural Science, Virtual, August 9-13.

Trandel MA, Perkins-Veazie P*, Schultheis J, Gunter C, Johannes E, and **Johanningsmeier SD**. 2019. **Understanding Hollow Heart Formation in ‘Liberty’ Watermelon.** American Society for Horticultural Science, Las Vegas, NV, July 21-25.

- Longtin M, Price RE, **Johanningsmeier SD**, *Conley-Payton S*, Bitzer D, and Breidt F*. 2019. **Modeling buffer capacity and pH in acid and acidified foods**. International Association for Food Protection Annual Meeting, Louisville, KY, July 21-24.
- Trandel MA*, Perkins-Veazie P*, Schultheis J, Gunter C, **Johanningsmeier SD**, and Johannes E. 2019. **Grafting Watermelon onto Interspecific Hybrid Squash Combats Hollow Heart Disorder**. International Society for Horticultural Science, International Symposium on Grafting, Charlotte, NC, July 14-18.
- Hamilton L*, **Johanningsmeier SD***, *Wilson EM*, and *Rosenberg L*. 2019. **Novel Oxidation Products in Cucumber Pickles in Real Time and Accelerated Shelf-Life Environments**. Institute of Food Technologists Annual Meeting, Chicago, IL, June 2-5.
- Longtin M, Price RE, **Johanningsmeier S**, *Conley Payton S*, Bitzer D, Breidt F*. 2019. **A buffer capacity model for predicting pH changes due to addition of low acid ingredients in acid foods**. International Association for Food Protection Annual Meeting, Louisville, KY, July 21-24.
- Fideler J*, **Johanningsmeier SD***. 2018. **Formation of gamma-amino butyric acid (GABA) in fermented cucumbers**. Institute of Food Technologists Annual Meeting, Chicago, IL, July 15-18.
- LaFountain L*, **Johanningsmeier SD***, Breidt F, Price R, and Stoforos G. 2018. **Effects of a brief blanching process on quality of refrigerated cucumber pickles**. Institute of Food Technologists Annual Meeting, Chicago, IL, July 15-18. *Awarded 1st place in the International Division Poster Competition.*
- Zhai Y*, Pérez Díaz IM*, **Johanningsmeier SD**. 2018. **Defining fermented cucumber damage induced by freezing**. Institute of Food Technologists Annual Meeting, Chicago, IL, July 15-18.
- Qiu X*, Reynolds R, Truong VD*, **Johanningsmeier SD**, Pecota K, Yencho C, and Osborne JA. 2018. **Free amino acids and sugars in fifteen sweetpotato genotypes: effects of storage and relationship with acrylamide formation in fried chips**. Institute of Food Technologists Annual Meeting, Chicago, IL, July 15-18. *Awarded 3rd place in the Fruits and Vegetables Division Poster Competition.*
- Johanningsmeier SD**. 2017. **Cucumber fermentation chemistry: Advances made possible through non-targeted mass spectrometry techniques**. 69th Southeastern Regional Meeting of the American Chemical Society (SERMACS 2017), Charlotte, NC, November 10. *Invited keynote speaker for the Fermented Foods Symposium.*
- Qiu X*, Reynolds R, Truong VD*, **Johanningsmeier SD**, Pecota K, and Yencho C. 2017. **Effects of sweetpotato genotypes and long-term storage on non-enzymatic browning and acrylamide formation in fried chips**. Institute of Food Technologists Annual Meeting, Las Vegas, NV, June 25-28.
- Fideler J*, Ekelöf M, Muddiman D, and **Johanningsmeier SD***. 2017. **Discovery of bioactive peptides in high salt acidified and fermented cucumbers by direct analysis IR-MALDESI mass spectrometry**. 65th American Society for Mass Spectrometry (ASMS) Annual Conference on Mass Spectrometry and Allied Topics, Indianapolis, IN, June 4-8.
- McMurtrie EK* and **Johanningsmeier SD***. 2016. **Quality of cucumbers fermented in calcium chloride brine for reduced environmental impact**. Institute of Food Technologists Annual Meeting, July 16-19, Chicago, IL.
- Qiu X*, Reynolds R, Truong VD*, **Johanningsmeier SD**, Pecota K, and Yencho GC. 2016. **Non-enzymatic browning and acrylamide formation in fried chips as affected by sweetpotato genotypes and curing process**. Institute of Food Technologists Annual Meeting, July 16-19, Chicago, IL. *Awarded 3rd place in the International Division Poster Competition.*
- Cauley SM*, Pérez Díaz IM*, and **Johanningsmeier SD**. 2016. **Survival of lyophilized, probiotic *Lactobacillus plantarum* and *Pediococcus acidilactici* in refrigerated, acidified cucumbers**. American Society for Microbiology Annual Meeting (ASM Microbes 2016), Boston, MA, June 16-20. *Selected for Press Release.*
- Klevorn CM*, **Johanningsmeier SD**, and Dean L*. 2016. **What Makes a Peanut, a Peanut? Elucidating the Metabolome of the Raw Peanut Seed**. 12th Annual Conference of the Metabolomics Society, Dublin, Ireland, June 27-30.

Cauley SM, Pérez Díaz IM*, and Johanningsmeier SD. 2015. **Survival of *Lactobacillus plantarum* and *Pediococcus acidilactici* probiotic cultures in refrigerated pickles.** Annual meeting of the NC Branch American Society for Microbiology, Raleigh, NC, October 3.

Daughtry KV, Johanningsmeier SD*, Barrangou R, Sanozky-Dawes R, and Klaenhammer TR. 2015. **Phenotypic and genotypic characterization of *Lactobacillus buchneri* isolated from fermented cucumber spoilage.** Institute of Food Technologists Annual Meeting, July 11-14, 2015, Chicago, IL. *Awarded 2nd place in Food Microbiology Division Poster Competition.*

Pérez-Díaz IM*, Hayes JS, Medina E, Butz N, Azcarate-Peril MA, and Johanningsmeier SD. 2015. **Microbial ecology of commercial scale cucumber fermentations brined with CaCl₂ instead of NaCl.** Society for Applied Microbiology Summer Conference 2015: Fermented Foods and Beverages, Dublin, Ireland.

Adidepe O, Johanningsmeier SD*, Yencho C, and Truong VD. 2014. **Development of a near infrared (NIR) spectroscopy model for prediction of acrylamide content in french-fried potatoes.** American Chemical Society Fall Meeting, San Francisco, CA, August 10-14.

Savage RM, Windle MC, Johanningsmeier SD, Kung Jr L*. 2014. **The effects of strains of yeasts or *Lactobacillus buchneri* 40788 on the fermentation, production of volatile organic compounds (VOCs), and aerobic stability of corn silage.** American Dairy Science Association National Meeting, Kansas City, MO, 20-24 July 2014.

Wolter EM, Johanningsmeier SD*. 2014. **Impact of bulk storage and residual calcium chloride on flavor characteristics of cucumber pickles produced with an environmentally-friendly fermentation process.** Institute of Food Technologists Annual Meeting, New Orleans Morial Convention Center, New Orleans, LA, June 21-24.

Wolter EM, Johanningsmeier SD*. 2013. **Consumer preference study of pickles produced from cucumbers fermented with calcium chloride, an environmentally friendly alternative to sodium chloride.** Institute of Food Technologists Annual Meeting, Chicago, IL.

Rosenberg L, Johanningsmeier SD*. 2013. **Texture retention in pickles produced from commercial scale cucumber fermentation using calcium chloride instead of sodium chloride.** Institute of Food Technologists Annual Meeting, Chicago, IL.

Daughtry KV, Johanningsmeier SD*, Pérez-Díaz IM. 2013. **Inhibition of spoilage-associated lactic acid bacteria using selected preservatives.** Institute of Food Technologists Annual Meeting, Chicago, IL.

Daughtry KV, Pérez-Díaz IM*, Johanningsmeier SD, Dieck SE, Iwata S, Levi MT, McMurtrie EK, Smith RE Jr, Theora JC. 2013. **Selection of starter culture(s) for commercial cucumber preservation using a screening design for fermentation potential and antimicrobial activity.** Institute of Food Technologists Annual Meeting, Chicago, IL.

Johanningsmeier SD, McFeeters RF*. 2012. **Biochemical characterization of fermented cucumber spoilage using a GCxGC-ToFMS metabolomic platform.** Institute of Food Technologists Annual Meeting, Las Vegas, NV.

Moeller L, Johanningsmeier SD, McFeeters RF*. 2012. **Evaluation of fresh-pack dill pickle chips in pasteurizable plastic containers.** Institute of Food Technologists Annual Meeting, Las Vegas, NV.

Franco W, Johanningsmeier SD, Pérez-Díaz IM*, and McFeeters RF. 2011. **Lactic acid utilization by *Lactobacillus buchneri* in fermented cucumber spoilage.** Poster. 10th Symposium on Lactic Acid Bacteria, the Netherlands.

Johanningsmeier SD and McFeeters RF*. 2010. **Effects of sodium chloride and pH on anaerobic lactic acid utilization during spoilage of fermented cucumbers.** Poster. Institute of Food Technologists Annual Meeting, Chicago, IL.

Johanningsmeier SD and McFeeters RF*. 2009. **Detection of volatile spoilage metabolites in fermented cucumbers using non-targeted, comprehensive 2D gas chromatography-time-of-flight mass spectrometry.** Poster. American Chemical Society Fall 2009 National Meeting, Washington DC.

McFeeters RF*, Johanningsmeier SD and Fornea DS. 2009. **Replacement of NaCl with CaCl₂ in the lactic acid fermentation of cucumbers.** Poster. American Chemical Society Fall 2009 National Meeting, Washington DC.

Johanningsmeier SD, Fleming HP*, Thompson RL, and McFeeters RF. 1999. **Chemical and sensory properties of sauerkraut produced with *Leuconostoc mesenteroides* starter cultures of differing malolactic phenotypes.** Poster. Institute of Food Technologists Annual Meeting, Chicago, IL.

Johanningsmeier SD, Fleming HP*, and Breidt F. 1997. **Malolactic activity of lactic acid bacteria during sauerkraut fermentation.** Oral presentation. Institute of Food Technologists Annual Meeting, Orlando, FL.

Dunn S, Vine RP*, Harkness E, and Bordelon B. 1995. **Grape-skin contact time effects resveratrol concentration in wine.** Oral presentation. American Society of Enology and Viticulture Eastern Section Annual Meeting, WV.

Invited Talks (31)

Johanningsmeier SD*, Uppili B, and LaFountain L. 2023. **Palate Pleasers: A Comprehensive Sensory Lexicon for the Eating Quality of Fresh and Processed Peppers.** Pickle Packers International Spring Meeting, April 19. *Invited Oral Presentation.*

Johanningsmeier SD*. 2022. **Challenges and Opportunities in the Pickling of Cucumber.** Great Lakes Expo, Pickling Cucumber Session, Grand Rapids, MI, December 6. *Invited Oral Presentation.*

Johanningsmeier SD*, Fan X, Schultheis J, and Starke K. 2021. **Presence and Persistence of Bitter Molecules in Pickling Cucumber.** Pickle Perspectives Webinar Series, Pickle Packers International, Virtual, December 14. *Invited Oral Presentation.*

Johanningsmeier SD*, Pérez Díaz IM, Höchster R, and Hausbeck J. 2021. **Factors Influencing Brine Stock Pickle Quality.** Tank Yard Quality Panel, Pickle Perspectives Webinar Series, Pickle Packers International, Virtual, November 30. *Invited Oral Presentation & Panelist.*

Johanningsmeier SD*. 2021. **Effects of Storage Root Biochemistry and Preparation Methods on Sweetpotato Product Quality.** RTBfoods Webinar, Virtual, June 18. *Invited Oral Presentation.*

Johanningsmeier SD*. 2021. **Breeding Tasty Sweetpotatoes: Influence of Storage Root Biochemistry on Sweetpotato Quality and Consumer Preferences.** Goodness Grows in the Carolinas – A Symposium Focusing on Advances in Sweetpotato Research and Processing through Public and Private Partnership, Virtual, April 14. *Invited Oral Presentation.*

Johanningsmeier SD*. 2020. **Science-based preservation technologies for producing high-quality, health-promoting, pickled vegetables.** Pickle Packers International Annual Meeting & Product Showcase, Virtual, October 19. *Invited Oral Presentation.*

Johanningsmeier SD*, Fideler J, and DuVivier R. 2020. **Functional Fermented Foods: Prospects for Health-Promoting Pickled Vegetables.** The Fermentation Association, September 23. *Invited Webinar.*

Johanningsmeier SD*, Fideler J, and DuVivier R. 2019. **Functional Fermented Foods: Prospects for Health-Promoting Pickles.** Pickle Packers International Annual Meeting & Product Showcase, St. Petersburg, FL, October 22-24. *Invited Oral Presentation.*

Safferman SI*, Breidt F, **Johanningsmeier SD**, Satish J, Knudson W. 2019. **Engineering evaluation of the bag-in-box brining technology.** Pickle Packers International Spring Meeting, Detroit, MI, April 16-18. *Co-author.*

*Fideler J**, **Johanningsmeier SD**, Ekelof M, Muddiman DC. 2018. **Fermented foods: Beyond probiotics.** North Carolina Academy of Nutrition and Dietetics (NCAND) Regional Meeting, Clemmons, NC, December 7. *Co-author.*

Johanningsmeier SD*. 2018. **PPI and USDA-ARS Future Research Brainstorming Ideas Revealed.** Pickle Packers International Annual Meeting, Chicago, IL October 16-18. *Invited Oral Presentation.*

Breidt F* and **Johanningsmeier SD***. 2018. **Brief Blanching: An Effective Sanitizing Treatment for Minimally Processed Cucumber Products – Part 2 Shelf-life study.** Pickle Packers International Annual Meeting, Chicago, IL October 16-18. *Invited Oral Presentation.*

Johanningsmeier SD*, Cauley S, Pérez Díaz IM. 2018. **Consumer Acceptability of Probiotic Pickles**. Pickle Packers International Spring Meeting, Pittsburgh, PA, April 17-19. *Invited Oral Presentation*.

Cauley S, Pérez Díaz IM*, **Johanningsmeier SD**. 2018. **Myths, Facts & Science Based Developments to Enable the Production of Probiotic Pickles with Beneficial Effects for Consumers**. Pickle Packers International Spring Meeting, Pittsburgh, PA, April 17-19. *Co-author*.

Zhai Y, Pérez Díaz IM*, **Johanningsmeier SD**. 2018. **Freezing Damage of Fermented Cucumbers: What is it?**. Pickle Packers International Spring Meeting, Pittsburgh, PA, April 17-19. *Co-author*.

Johanningsmeier SD. 2017. **Cucumber fermentation chemistry: Advances made possible through non-targeted mass spectrometry techniques**. 69th Southeastern Regional Meeting of the American Chemical Society (SERMACS 2017), Charlotte, NC, November 10. *Invited keynote speaker for the Fermented Foods Symposium*.

Breidt F* and **Johanningsmeier SD***. 2017. **Brief Blanching: An Effective Sanitizing Treatment for Minimally Processed Cucumber Products**. Pickle Packers International Annual Meeting, Chicago, IL October 30-November 2. *Invited Oral Presentation*.

Johanningsmeier SD*. 2017. **Case Study: An Unusual Off-flavor in Pickles Prepared from Acidified Gherkins**. Pickle Packers International Spring Meeting, Milwaukee, WI, April 18-20. *Invited Oral Presentation*.

Johanningsmeier SD* and *McMurtrie EM*. 2016. **Quality of Cucumbers Fermented in Calcium Chloride Brine for Reduced Environmental Impact**. Pickle Packers International Annual Meeting, Charleston, SC, October 19-20. *Invited Oral Presentation*.

Johanningsmeier SD*. 2016. **Metabolomics approaches to detect food spoilage: Biochemical Characterization of Fermented Cucumber Spoilage using Non-targeted, Comprehensive, Two-dimensional Gas Chromatography-Time-of-Flight Mass Spectrometry**. Max Rubner Conference 2016 'Food Metabolomics', Karlsruhe, Germany, October 10-12. *Invited Oral Presentation*.

Johanningsmeier SD*, *Kaufman A*, Farkas B, and Pérez Díaz IM. 2016. **Remediation of spent pickling brines using activated carbon**. Pickle Packers International Spring Meeting, Raleigh, NC, April 20-21, *Invited Oral Presentation*.

Pérez Díaz IM*, **Johanningsmeier SD**, Diaz-Isaya J, and Anekella K. 2015. **Advances in NaCl-free cucumber fermentations**. Pickle Packers International Annual Meeting and Product Showcase, Ft. Worth, TX, October 28-30. *Co-author*.

Johanningsmeier SD*. 2015. **Pickle texture - Let's talk about it!** Pickle Packers International Annual Meeting and Product Showcase, Ft. Worth, TX, October 28-30, *Invited Oral Presentation*.

Pérez-Díaz IM*, **Johanningsmeier SD**, Hayes JS, *Conley-Payton S*, and Diaz-Isaya J. 2015. **Research Progress on Cucumber Fermentation Brined with CaCl₂ instead of NaCl**. Pickle Packers International Spring Meeting, Baltimore, MA, April 14-16, *Co-author*.

Pérez-Díaz IM* and **Johanningsmeier SD**. 2015. **Cucumber pickling without sodium chloride**. *Contributed data for Global Pickling Cucumber Conference*, Haalen, The Netherlands sponsored by Nunhems Bayer Crop Science, January 25.

Johanningsmeier, SD*. 2014. **An accelerated shelf life model to evaluate product quality changes in cucumber pickles**. Pickle Packers International Annual Meeting and Product Showcase, Orlando, FL, October 22-24, *Invited Oral Presentation*.

Farkas B*, *Kaufman A*, Pérez Díaz IM, **Johanningsmeier SD**. 2014. **Characterization and remediation of spent pickle brine**. Pickle Packers International Spring Meeting, Dearborn, MI, April 22-24. *Co-author*.

Johanningsmeier SD*, *Wolter EM*, *Rosenberg L*. 2013. **Product quality of pickles fermented without salt**. Pickle Packers International Spring Meeting, Indianapolis, IN. *Invited oral presentation*.

Johanningsmeier SD*, *Connor K*, *Truong A*. 2012. **Natural colorant alternatives for pickled vegetables**. Pickle Packers International 2012 Annual Meeting Product Showcase, New Orleans, LA. *Invited oral presentation*.

Johanningsmeier SD*. 2011. **Biochemical Characterization of Fermented Cucumber Spoilage: Lactic acid degradation by lactic acid bacteria**. Pickle Packers International Annual Meeting & Product Showcase, Las Vegas, NV. *Invited oral presentation.*

Student Symposia and Competitions (18)

*Abugu M, Johanningsmeier SD, Nakitto M, Allan M, Pecota K, Iorizzo M, and Yencho C**. 2023. **The sweet scents of sweetpotato: Identification of volatile compounds predicting unique flavors**. Annual Meeting of the National Sweetpotato Collaborators Group, Wilmington, NC, January 20-21. *Awarded 3rd Place in the Doctoral Research Competition.*

*Uppili B, LaFountain LJ, and Johanningsmeier SD**. 2022. **Characterizing the quality of fresh and processed peppers by their aroma, flavor, and texture**. Graduate Student Research Symposium, North Carolina State University, Raleigh, NC, April 6. *Awarded 1st Place in the Agricultural Sciences Division.*

*Mancera Azamar KM, LaFountain LJ, Johanningsmeier SD**. 2019. **Lipoxygenase and antioxidant activity in raw and blanched cucumber**. Peach State Louis Stokes Alliance for Minority Participation, STEM Innovators Conference 2019, University of Georgia, Athens, GA, October 3.

*Duvivier R, Fideler J, Johanningsmeier SD**. 2019. **Effect of salt concentration on gamma-aminobutyric acid production in naturally fermented cucumber**. North Carolina State University Undergraduate Research Symposium, Raleigh, NC, August 1.

Trandel MA, Perkins-Veazie P, Schulteis J, Gunter C, and Johanningsmeier SD*. 2019. **Exploring Cell Wall Chemistry to Understand a Watermelon Fruit Disorder**. Graduate Student Research Symposium, North Carolina State University, Raleigh, NC, March 20. *Awarded 1st Place in the Agricultural Sciences Division.*

*LaFountain L, Johanningsmeier SD**, Breidt F, Price R, and Stoforos G. 2018. **Effects of a Brief Blanching Process on Quality of Refrigerated Cucumber Pickles**. Graduate Student Research Symposium, North Carolina State University, Raleigh, NC, March 21.

Zhai Y, Pérez Díaz IM, Johanningsmeier SD*. 2018. **Defining Fermented Cucumber Damage Induced by Freezing**. Graduate Student Research Symposium, North Carolina State University, Raleigh, NC, March 21.

Scinto S, Johanningsmeier SD, Conley-Payton S, and Pérez-Díaz IM*. 2017. **Converting End of Shelf-Life, Surplus Vegetables into Value-Added, Fermented Vegetable Products**. Tufts University, The Future of Food and Nutrition, Graduate Student Research Conference, Boston, MA, April 8.

*Fideler J, Ekelöf M, Muddiman D, and Johanningsmeier SD**. 2017. **Discovery of bioactive peptides in high salt acidified and fermented cucumbers by direct analysis IR-MALDESI mass spectrometry**. Graduate Student Research Symposium, North Carolina State University, Raleigh, NC, March 22. *Awarded 2nd Place in Life Sciences Division.*

*Riley IM, Johanningsmeier SD**, Dean L, Pérez Díaz IM, and Mattison CP. 2016. **Biochemical changes and protein characterization during lactic acid fermentation of cashew nut extract and cucumber juice**. North Carolina State University Undergraduate Research Symposium, Raleigh, NC, August 2.

*Scinto S, Conley-Payton S, and Johanningsmeier SD**. 2015. **Converting End of Shelf Life Surplus Vegetables into Value-Added Fermented Vegetable Products**. North Carolina State University Undergraduate Research Symposium, July 29, 2015, Raleigh, NC.

*Whitfield S, Johanningsmeier SD**, and Pérez-Díaz IM. 2015. **Effects of Acetic acid and Scuppernong Grape Leaves during Fermentation of Cucumbers in Low Salt Brine**. North Carolina State University Undergraduate Research Symposium, July 29, 2015, Raleigh, NC.

*Toton B, Lanier ER, Conley-Payton S, Johanningsmeier SD**. 2014. **Quantification of sodium benzoate in pickled vegetables by solid-phase extraction and UV-Vis spectroscopy**. Undergraduate Research Symposium, North Carolina State University, Raleigh, NC, 30 July 2014.

*Whitfield S, Cheema M, Stowe R, Parks M, Baker K, McMurtrie E, Johanningsmeier SD**. 2014. **Analysis of low salt and traditional commercial cucumber fermentations**. Undergraduate Research Symposium, North Carolina State University, Raleigh, NC, 30 July 2014.

*Borges M, Bream C, Connelly L, Wendland P, Anekella K, Johanningsmeier SD, Pérez-Díaz IM**. 2013. **Selection of starter culture(s) for commercial cucumber preservation in the midwest using a screening design for fermentation potential and antimicrobial activity**. North Carolina State University Undergraduate Research Symposium, Raleigh, NC.

*Rice J, Johanningsmeier SD**, Troung VD. 2013. **Fermentation of Sweetpotato Juice with Probiotic Cultures**. North Carolina State University Undergraduate Research Symposium, Raleigh, NC.

*Daughtry KV, Johanningsmeier SD**, Pérez-Díaz IM. 2013. **Inhibition of spoilage-associated lactic acid bacteria using selected preservatives**. North Carolina State University Undergraduate Research Symposium, Raleigh, NC.

*Daughtry KV, Dieck SE, Iwata S, Levi MT, McMurtrie EK, Smith RE Jr, Theora JC, Johanningsmeier SD, Pérez-Díaz IM**. 2012. **Selection of starter culture(s) for commercial cucumber preservation using a screening design for fermentation potential and antimicrobial activity**. Undergraduate Research Symposium, NC State University, Raleigh, NC.

*Connor K, Truong A, and Johanningsmeier SD**. 2012. **Natural Colorants as Alternatives to FD&C Yellow 5 in Pasteurized Pickle Products**. Undergraduate Research Symposium, NC State University, Raleigh, NC.

Outreach/Other (16)

Abugu M, Johanningsmeier SD, Allan MC, Iorizzo M, Pecota K, Yencho GC. 2024. **Comprehensive Two-Dimensional Gas Chromatography Reveals the Volatile Compounds Present in a Biparental Sweetpotato Mapping Population**. Annual Meeting of the National Sweetpotato Collaborators Group, New Orleans, LA, January 19-20.

*Allan MC**, Thomas LS, and *Johanningsmeier SD*. 2024. **Acrylamide reduction in sweetpotato chips: Limiting substrates and the effects of an asparaginase treatment**. Annual Meeting of the National Sweetpotato Collaborators Group, New Orleans, LA, January 19-20.

*Allan MC**, *Johanningsmeier SD*, *Nakitto M*, *Guambe O*, *Abugu M*, *Pecota KV*, and *Yencho GC*. 2024. **Relationships among physicochemical properties, textures, and sweetness perception in baked sweetpotatoes**. Annual Meeting of the National Sweetpotato Collaborators Group, New Orleans, LA, January 19-20.

*Johanningsmeier SD**, *Nakitto M*, *Abugu M*, *Khakasa E*, *Allan MC*, *Pecota KV*, and *Yencho C*. 2023. **Breeding Tasty Sweetpotatoes: Development of a Universal Sensory Lexicon for Characterizing Sweetpotato Appearance, Flavor, and Texture**. Annual Meeting of the National Sweetpotato Collaborators Group, Wilmington, NC, January 20-21.

*Allan MC** and *Johanningsmeier SD*. 2023. **Fried Sweetpotato Textures: Effects of Storage Root Chemistries**. Annual Meeting of the National Sweetpotato Collaborators Group, Wilmington, NC, January 20-21.

*Allan MC**, *Ibrahim R*, *Johanningsmeier SD*, *Pecota KV*, and *Yencho GC*. 2023. **Simultaneous prediction of beta-carotene, anthocyanins, and phenolics in sweetpotatoes by near-infrared spectroscopy**. Annual Meeting of the National Sweetpotato Collaborators Group, Wilmington, NC, January 20-21.

*Abugu M, Johanningsmeier SD, Allan M, Iorizzo M, and Yencho GC**. 2022. **Exploring and quantifying the chemical constituents responsible for consumer-preferred flavors in sweetpotatoes**. Annual Meeting of the National Sweetpotato Collaborators Group, New Orleans, LA, February 11-12.

*Trandel MA**, *Perkins-Veazie P*, *Schultheis J*, *Gunter C*, and *Johanningsmeier SD*. 2021. **Watermelon cell wall structure in fruit from grafted plants with and without hollow heart defect**. 2021 Watermelon Research & Development Group Annual Meeting, Virtual, February 5.

*Pérez-Díaz IM**, *Breidt F*, *Johanningsmeier SD*, and *Qureshi M*. 2020. **USDA-ARS Food Science Research Unit Research Progress Report for Pickle Packers**. Pickle Packers International Manufacturing and Technology Committee Meeting, Virtual, April 14.

Qiu X, Reynolds R, Truong, VD*, **Johanningsmeier SD**, Pecota KV, Yencho C, and Osborne J. 2018. **Browning and Acrylamide in Sweetpotato Fried Chips from Various Genotypes: Effects of Curing and Long-Term Storage.** Annual Meeting of the National Sweetpotato Collaborators Group, Wilmington, NC, January 19-21.

Johanningsmeier SD* and *McMurtrie EM*. 2017. **Impact of Commercial Processing Variables on Texture Quality of Pickles Produced Using Environmentally-Friendly Calcium Chloride Fermentation.** Mount Olive Pickle Company, Mount Olive, NC, February 14. *Research update.*

Sato A, Truong VD*, Reynolds R, **Johanningsmeier SD**, Pecota KV, and Yencho C. 2017. **Sweetpotato Genotypes and Textural Characteristics of French Fries.** Annual Meeting of the National Sweetpotato Collaborators Group, Mobile, AL, February 3-4.

Qiu X, Reynolds R, Truong, VD*, **Johanningsmeier SD**, Pecota KV, and Yencho C. 2016. **Identification of chemical components affecting non-enzymatic browning and acrylamide formation in sweetpotato fried chips.** PepsiCo Journey through Science Day, New York Academy of Sciences, NY, November 14.

Adedipe O, **Johanningsmeier SD**, Truong VD, Douches D, Coombs J, Clough M and Yencho C*. 2014. **Near infrared spectroscopy method for quantification of acrylamide in processed potato products.** 98th Annual Meeting of The Potato Association of America, Spokane, WA, July 27-31.

Pérez-Díaz IM*, **Johanningsmeier SD***, Hayes JS, *Fornea DS*, Price RE. 2013. **Salt-free and reduced salt preservation of fresh cucumbers with acetic acid and preservatives.** Mount Olive Pickle Company and Marcatus QED, Mount Olive, NC. *Research update.*

Johanningsmeier SD*. 2012. **A basic science approach to development of improved processes for fermented and acidified vegetables.** Pickle Packers International Brainstorming Session 2012, Raleigh, NC.

Local Presentations (2)

Johanningsmeier SD*. 2009. **Chemical characterization of the food metabolome: Contributions to food science & human health.** Food Science seminar, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC.

Johanningsmeier SD*. 2009. **Metabolomic technologies for food and nutrition research.** Nutrition seminar, North Carolina State University, Raleigh, NC.