

California

i. Journal papers (follow style guide for JFS, copied below)

Oztop HM, Bansal H, Takhar P S, McCarthy KL, McCarthy MJ. 2014. Using multi-slice-multi-echo images with NMR relaxometry to assess water and fat distribution in coated chicken nuggets. *LWT - Food Science and Technology* 55:690-694.

Bornhorst G.M., R.P. Singh. 2013. Kinetics of bread bolus digestion with varying in vitro oral and gastric parameters. *Food Biophysics*. 8(1):50-59.

Bornhorst G.M., M.J. Roman, S.M. Rutherford, B.J. Burri, P.J. Moughan, R.P. Singh. 2013. Gastric digestion of raw and roasted almonds in vivo. *Journal of Food Science*. 78(11): H1807-H1813.

Bornhorst G.M., M.J. Roman, K.C. Dreschler, R.P. Singh. 2013. Physical property changes in raw and roasted almonds during gastric digestion in vivo and in vitro. *Food Biophysics*. DOI:10.1007/s11483-013-9315-2.

Bornhorst G.M., R.P. Singh. 2014. Gastric digestion in vivo and in vitro: How the structural aspects of food influence the digestion process. *Annual Review of Food Science and Technology*. 5:111-132.

Bornhorst G.M., H. Hivert, R.P. Singh. 2014. Rice bolus texture changes due to alpha-amylase. *LWT –Food Science and Technology*. 55(1): 27-33.

Minekus, M., Alminger, M., Alvito P., Ballance S., Bohn T., Bourlieu C., Carri`ere F., Boutrou R., Corredig M., Dupont D., Dufour C., Egger L., Golding M., Karakaya S., Kirkhus B., Le Feunteun S., Lesmes U., Macierzanka A., Mackie A., Marze S., McClements D. J., M`enard O., Recio I., Santos C. N., Singh R. P., Vegarud. G.E., Wickham M. S. J., Weitschies W. and A. Brodtkorb 2014. A standardized static in vitro digestion method suitable for food – an international consensus. *Food and Function*. 5:1113-24.

ii. Abstracts, proceedings

Mihailova O, Bakalis S, McCarthy K, Lim V, McCarthy M. 2014. Application of MRI and PEPT to study complex flow through an SMX mixer. 2014 IFT Annual Meeting, Institute of Food Technologists, New Orleans, LA. Abstract No. 028-24.

Drechsler, K., Ferrua, M.J. Singh, R.P. 2014. Role of Gastric Juice on the Material Properties and Mechanical Disintegration of Solid Food. 2014 IFT Annual Meeting, Institute of Food Technologists, New Orleans, LA. Abstract No. 024-18

iii. Presentations

McCarthy KL , Tozzi EJ, McCarthy MJ. 2014. Magnetic resonance imaging (MRI) to assess rheology and mixing in process applications. North American Mixing Forum: Mixing XXIV, Lake George, NY. June 22-27. Plenary Talk.

Hawaii

i. Journal papers (follow style guide for JFS, copied below)

Abdullah, S., Lee, S.H., Cho, I., Choi, W., and Jun, S. 2013. Pasteurization of Kava Juice using Novel Continuous Flow Microwave Heating Technique. *Food Science and Biotechnology* 22(4): 961-966

Chee, G., Rungraeng, N., Han, J.H., and Jun, S. 2014. Electrochemical impedance spectroscopy as an alternative to determine dielectric constant of potatoes at various moisture contents. *Journal of Food Science* 79(2): 195-201

Choi, W and Jun, S. 2013. Measurement of structural shrinkages of freeze dried chipping potatoes for crack modeling. *Food Science and Biotechnology* 22(4): 967-972

Choi, W., Lee, S.H., Kim, C., and Jun, S. 2014. Numerical approach of a continuous flow microwave and ohmic heating for particulate foods using a finite element method. *Journal of Food Engineering* (accepted)

Lee, S.H., Choi, W., and Jun, S. 2014. Design and fabrication of a dual cylindrical microwave and ohmic combination heater for processing of particulate foods. *Food Science and Biotechnology* (pending)

Lee, S.H., Choi, W., Kim, C., and Jun, S. 2014. Development of a dual cylindrical microwave and ohmic combination heater for minimization of thermal lags in the processing of particulate foods. *LWT- Food Science and Technology* (pending)

Lee, S.H., Yamada, K., and Jun, S. 2013. Ultraviolet Radiation Assisted with Ohmic Current for Microbial Inactivation in Apple Juice. *Transactions of the ASABE* 56(3): 1085-1091

Lu, L., Chee, G., Yamada, K., and Jun, S. 2013. Electrochemical impedance spectroscopic technique with a functionalized microwire sensor for rapid detection of foodborne pathogens. *Biosensors and Bioelectronics* 42: 492-495

Mok, J.H., Choi, W., Park, S.H., Lee, S.H., and Jun, S. 2014. Emerging pulsed electric field (PEF) and static magnetic field (SMF) combination technology for food freezing. *International Journal of Refrigeration* (pending)

Yamada, K., Kim, C., Kim, J., Chung, J., Lee, H.G., and Jun, S. 2014. Single walled carbon nanotube-based junction biosensor for detection of *Escherichia coli*. *PLOS ONE* 9(9): 1-7

Yoon, S.H., Rungraeng, N., Song, W., and Jun, S. 2014. Superhydrophobic and superhydrophilic nanocomposite coatings for preventing *Escherichia coli* K-12 adhesion on food contact surface. *Journal of Food Engineering* 131(2014): 135-141

ii. Abstracts, proceedings

Lee, S.H., Choi, W. and **Jun, S.** 2014. Computational Modeling for the Validation of Thermal Sterilization and Heating Profile of Multiphase Foods in a Dual Cylindrical Microwave and Ohmic Combination Heater. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

Lee, I., Choi, W., and Jun, S. 2014. Macro-scale cascade dielectrophoresis (DEP) device for continuous flow bacteria cell separation in drinking water. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

Rungraeng, N., Hizal F., Choi, C., and Jun, S. 2014. Prevention of microbial adhesion using nano-engineered alumina surfaces. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

Rungraeng, N., Yoon, S.H., and Jun, S. 2014. Prevention of *Listeria monocytogenes* adhesion on food contact surface using easy-to-clean self-slippy cellulose nanofiber coating. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

Shafel, T., Mok, J.H., and Jun, S. 2014. Quality factor analysis of a chicken breast maintained at an extended supercooling state. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

Yamada, K. and Jun, S. 2014. Multiplexed detection of foodborne pathogens using a single walled carbon nanotube based biosensor. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

iii. Presentations

Jun, S. 2014. Multiplexed Detection of Foodborne Pathogens Using a Single-Walled Carbon Nanotube (SWCNT)-Based Junction Biosensor. The 2014 IFT Annual Meeting, June 21-24, New Orleans, LA

Jun, S. 2014. Quality factor control and analysis of a chicken breast maintained at an extended supercooling state below the freezing point. The 81th Annual Meeting of Korean Society of Food Science and Technology (KoSFOST) in Gwangju, Republic of Korea, August 25 – 27.

Jun, S. 2014. A Finite Element Method Based Flow and Heat Transfer Model of Continuous Flow Microwave and Ohmic Combination Heating for Particulate Foods. FOOMA JAPAN International Food Machinery & Technology Exhibition, June 10-13, Tokyo, Japan

iv. Theses, dissertations

Yamada, K. 2014. Single walled carbon nanotube-based multi-junction biosensor for detection of foodborne pathogens, MS dissertation, Human Nutrition, Food and Animal Sciences, University of Hawaii.

Mok, Jing Hong, 2013. Emerging pulsed electric field and oscillating magnetic field combination technologies on food freezing, MS dissertation, Human Nutrition, Food and Animal Sciences, University of Hawaii.

Lee, Seung Hyun, 2014. Hybrid combination of emerging food processing technologies: Microwave and pulsed ohmic heating, PhD dissertation, Molecular Biosciences and Bioengineering, University of Hawaii.

Idaho

Joyner (Melito) HS, Pernell CW, Daubert CR 2014. Beyond surface selection: the impact of different methodologies on tribological measurements. *Journal of Food Engineering*, 134:45-58.

Joyner (Melito) HS, Pernell CW, Daubert CR. 2014. Impact of formulation and saliva on acid milk gel friction behavior. *Journal of Food Science*, 79(5):867-880.

Joyner (Melito) HS, Pernell CW, Daubert CR. 2014. Impact of oil-in-water emulsion composition and preparation method on emulsion physical properties and friction behaviors. *Tribology Letters*. 56(1):143-160.

Joyner (Melito) HS, Pernell CW, Daubert CR. 2014. Impact of parameter settings on normal force and gap height during tribological measurements. *Journal of Food Engineering*, 137:51-63.

Illinois

Padua GW. 2014. Bicontinuous delivery systems. In "Nano- and micro-scale vehicles for effective delivery of bioactive ingredients in functional foods." Sabliov CM, Chen H, Yada R, editors. Wiley-Blackwell. In Press.

Takhar, P. S. (2014). "Unsaturated fluid transport in swelling poroviscoelastic biopolymers." *Chemical Engineering Science* **109**(0): 98-110.

Oztop, M., H. Bansal, P. S. Takhar, M. J. McCarthy and K. L. McCarthy (2014). "Using Multi-Slice-Multi-Echo images with NMR Relaxometry to assess water and fat distribution in coated chicken nuggets." *LWT - Food Science and Technology* **55**(2): 690-694.

Dit-u-dompo, S., P. S. Takhar, G. Ganjyal and M. Hanna (2013). The effect of temperature and moisture on mechanical properties of extruded cornstarch. *Journal of Texture Studies* **44**: 225-237.

Palma Salgado S, Pearlstein AJ, Luo Y, Park HK, Feng H. 2014. Whole-head washing, prior to cutting, provides sanitization advantages for fresh-cut Iceberg lettuce (*Lactuca sativa* L.), *International Journal of Food Microbiology*, 179: 18-23.

Palma Salgado S, Pearlstein AJ, Luo Y, Feng H. 2014. Quality of Iceberg (*Lactuca sativa* L.) and Romaine (*Lactuca sativa* L. var. *longifolia*) lettuce treated by combinations of sanitizer, surfactant, and ultrasound, *LWT - Food Science and Technology*, 56: 261–268.

Kentish S, Feng H. 2014. Applications of power ultrasound in food processing, *Annual Review of Food Science and Technology*, 5: 263-284.

ii. Abstracts, proceedings

Park HK, Theuri J, Feng H. 2014. Microbial profiles of selected fresh produce from farmers' markets and retail stores in Illinois. 2014 IAFP Annual Meeting, Indianapolis, IN.

Park HK, Shin H, Feng H. 2014. Response surface modeling for achieving 5-Log reduction of *E. coli* O157:H7 on alfalfa seeds by sonication and mild heat without compromising germination rates. Institute of Food Technologists annual meeting, New Orleans, LA.

Kahraman O, Feng H. Manothermosonication (MTS) treatment of apple-carrot juice blend for inactivation of *Escherichia coli* O157:H7. Institute of Food Technologists annual meeting, New Orleans, LA.

Yildiz G, Feng H. 2014. Enhancing soy protein functionality by manothermosonication. Institute of Food Technologists annual meeting, New Orleans, LA.

Jiang S, Andrade J, Almajwal A, Feng H. 2014. Optimization of pH-shifting and ultrasonication combined treatment for enhancing pea protein functionality. Institute of Food Technologists annual meeting, New Orleans, LA.

Palma Salgado S, Liu Y, Nguyen TH, Pearlstein AJ, Feng H, Luo Y. 2014. Polydimethylsiloxane-based artificial plant surface for studying bacteria-plant surface interactions. Institute of Food Technologists annual meeting, New Orleans, LA.

iii. Presentations

Feng H. 2014. Microbial inactivation by power ultrasound for enhanced food safety. Institute of Food Technologists annual meeting, New Orleans, LA.

Indiana

- i. Journal papers (follow style guide for JFS, copied below)
Moiseev, T., Misra, N.N., Patil, S., Cullen, P.J., Bourke, P., Keener, K.M., Mosnier, J.P. 2014. Post-discharge gas composition of a large-gap DBD in humid air by UV-Vis absorption spectroscopy. *Plasma Sources Science and Technology*. In press.

- NN Misra, KM Keener, P Bourke, JP Mosnier, PJ Cullen. 2014. In-package atmospheric pressure cold plasma treatment of cherry tomatoes. *Journal of Bioscience and Bioengineering*. In press.
- D. Ziuzina, S Patil, PJ Cullen, KM Keener, P Bourke. *Food Microbiology* . 2014. Atmospheric Cold Plasma inactivation of *Escherichia coli*, *Salmonella enterica* serovar Typhimurium and *Listeria monocytogenes* inoculated on fresh produce. *Food Microbiology*. 42:109-116.
- H Lu, S Patil, KM Keener, PJ Cullen, P Bourke. 2014. Bacterial inactivation by high-voltage atmospheric cold plasma: influence of process parameters and effects on cell leakage and DNA. *Journal of Applied Microbiology*. 116(4):784-794.
- NN Misra, Tamara Moiseev, Sonal Patil, SK Pankaj, Paula Bourke, JP Mosnier, KM Keener, PJ Cullen. 2014. Cold Plasma in Modified Atmospheres for Post-harvest Treatment of Strawberries. *Food and Bioprocess Technology*. 1-10.
- NN Misra, S Patil, T Moiseev, P Bourke, JP Mosnier, KM Keener, P.J. Cullen. 2014. In-package atmospheric pressure cold plasma treatment of strawberries. *J. of Food Engineering* 125, 131-138.
- SK Pankaj, C Bueno-Ferrer, NN Misra, V Milosavljević, CP O'Donnell, Paula Bourke, KM Keener, PJ Cullen. 2014. Applications of cold plasma technology in food packaging. *Trends in Food Science & Technology* 35 (1), 5-17.
- ii. Abstracts, proceedings
- Yi Chen and **K.M. Keener**. 2014. High Voltage Atmospheric Cold Plasma Treatment of Shell Eggs and its Effect on Microbial Reduction. Non-Thermal Division Graduate Student Poster Competition. Abstract #5. Institute of Food Technologists Meeting. June 21-24, 2014. New Orleans, LA. Awarded 3rd place in Division.
- iii. Presentations
- Atmospheric plasma technologies in food processing. August 20, 2014. Invited session: "Nonthermal energy input food processing - the state of the engineering sciences". Sponsored by the International Society of Food Engineers at the 17th World Congress of Food Science & Technology (IUFoST 2014). Montreal, Canada. 150 persons attending.
- Atmospheric Cold Plasma Technology and Potential Applications in Poultry Processing. October 8, 2013. National Meeting on Poultry Health, Processing, and Live Production. Ocean City, Md. 100 persons attending.
- 21st Century Egg Processing Technologies. November 6, 2013. Iowa Egg Industry Symposium. Iowa State University, Ames, IA. 200 persons attending.
- iv. Theses, dissertations
- Yi Chen. Purdue University Department of Food Science. Master of Science. Aug 2014. High Voltage Atmospheric Cold Plasma Treatment of Shell Eggs for Bacterial Reduction and Shelf-life Extension. Advisor: Kevin M. Keener
- Iowa**
- i. Journal papers (follow style guide for JFS, copied below):

Banach, J., Clark, S., and **Lamsal, B.P***. 2014. Texture and Other Changes During Storage in Model High-Protein Nutrition Bars Formulated with Modified Milk Protein Concentrates, *LWT - Food Science and Technology*, **56**: 77-86.

Horsch A.M., J.G. Sebranek, J.S. Dickson, S.E. Niebuhr , E.M. Larson, N.A.

Lavieri, B.L. Ruther, L.A. Wilson. 2014. The effect of pH and nitrite concentration on the antimicrobial impact of celery juice concentrate compared with conventional sodium nitrite on *Listeria monocytogenes*. *Meat Science*. 96:400-407.

Lavieri NA, Sebranek JG, Brehm-Stecher BF, Cordray JC, Dickson JS, Horsch AM, Jung S, Larson EM, Manu DK, Mendonca AF. 2014. Investigating the control of *Listeria monocytogenes* on a ready-to-eat ham using natural antimicrobial ingredients and post-lethality interventions, *Foodborne Pathogens and Disease* 11, 462-467.

Lavieri NA, Sebranek JG, Brehm-Stecher BF, Cordray JC, Dickson JS, Horsch AM, Jung S, Larson EM, Manu DK, Mendonca, AF. 2014. Investigating the control of *Listeria monocytogenes* on alternatively-cured frankfurters , -using natural antimicrobial ingredients or post-lethality interventions, *Meat Science* 97: 568-574.

Lavieri NA, Sebranek JG, Cordray JC, Dickson JS, Horsch AM, Jung S, Manu DK, Mendonca AF. 2014. Effects of different nitrite concentrations from a vegetable source with and without high hydrostatic pressure on the recovery and growth of *Listeria monocytogenes* on ready-to-eat restructured ham, *Journal of Food Protection* 77: 781-787.

Lavieri NA, Sebranek JG, Cordray JC, Dickson JS, Horsch AM, Jung S, Manu DK, Mendonca AF. 2014. Evaluation of the thin agar layer (TAL) method for the recovery of heat-injured and pressure-injured *Listeria monocytogenes*, *Journal of Food Protection*.77: 828-831,

Villamonte G, Jury V, Jung S, de Lamballerie M. Forthcoming. Influence of xanthan gum on the structural characteristics of myofibrillar proteins treated by high pressure, *Journal of Food Science*.

a. Abstracts, proceedings

b. Presentations

Banach, J.C., Clark, S., Metzger, L.E., and **Lamsal, B.***. Performance of Cross-linked and Calcium-reduced Milk Protein Concentrates Ingredients in Model High-protein Nutrition Bars, poster presentation at ADSA®-JAM, July 20-24, 2014, Kansas City, MO.

Grewall-Sekthon J, Yao L, Johnson L, Wang T, Rosentrater K, Jung S. Optimizing ethanol production, oil partitioning and DDGS quality in integrated corn/soybean biorefineries, 105th AOCS Annual Meeting and Expo, San Antonio, 2014.

Jung S, de Lamballerie M, David-Briand E, Anton M. Effect of high pressure processing on the digestibility of unabsorbed proteins surrounding soybeans oleosome, 8th International Conference on High pressure Bioscience and Biotechnology, July 15-18th 2014, Nantes, France.

Jung S.* Is high pressure processing affecting food digestibility? V International Congress of Food Science and Technology, Cordoba, Argentina, November 17-19th, 2014.

Jung S.*, Is landfill the best way to dispose of our food waste? Conference of Food Engineering, April 7-9, 2014.

Jung S, Conversion of food scrap - an urgent necessity, IFT annual meeting, New Orleans, 2014.

Shaw A, Svoboda A, Mendonca A, and Jung S. Search for a natural intervention against *L. monocytogenes* in Wheatgrass Juice. International Association for Food Protection Annual Meeting. Indianapolis, IN, 2014.

Villamonte G, Jury V, Jung S, de Lamballerie M. Effect of xanthan gum on the structural modifications of myofibrillar proteins by high pressure, 8th International Conference on High pressure Bioscience and Biotechnology, July 15-18th 2014, Nantes, France.

Kentucky

Adedeji, A. A., Alakali, J., & Ngadi, M. O. (2014). Characterization of thermophysical properties of *Afzelia* (*Afzelia africana*) seed. American Journal of Nutrition and Food Science 1(3), 57- 63.

i. Abstracts, proceedings

Adedeji A. A., Alavi, S., Matthew, F. (2014). Micronutrient fortified extruded rice kernels: impact of processing and formulation on physico-chemical attributes. American Association of Cereal Chemists International (AACCI). Holding at Providence, Rhode Island USA October 5 – 8, 2014. Paper No. - 146-P. (Poster).

Chijioke, E., **Adedeji, A.A.**, Danbaba, N. and Ngadi, M. (2014). Effect of Steaming on Physical and Thermal Properties of Parboiled Rice from Nigeria. A paper presented at American Society of Biological and Agricultural Engineering (ASABE) annual conference Held at Montreal, Canada from July 13 – 16, 2014. Poster presentation. Paper No.: 141913047. (Poster).

Alejandro, M. M., **Adedeji, A.A.** and Ngadi, M. (2014). Development of an objective freshness index for an American variety of eggplant (*Solanum melongena* L. cv. Traviata). A paper presented at American Society of Biological and Agricultural

Engineering (ASABE) annual conference Held at Montreal, Canada from July 13 – 16, 2014. Poster presentation. Paper No.: 141913457 (Poster).

Alakali, J. S., Eze, S. O., Adewale P.O. **Adedeji, A.A** and. Ngadi, M. O. (2014). Dynamic and steady flow behaviour of *Deterium microcarpum* gum solutions. A paper presented at American Society of Biological and Agricultural Engineering (ASABE) annual conference Held at Montreal, Canada from July 13 – 16, 2014. Paper No.: 141909304. (Poster).

Zhu, L., Desam, G., P., R., Herald, T.J., **Adedeji, A.A.**, and Alavi, S. (2014). Effect of whey protein concentrate on dough rheology and tortilla quality parameters in corn and sorghum. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at New Orleans, LU USA. June 21 – 24, 2014. (Poster).

Joseph, M., Zhu, L., **Adedeji, A.A.**, and Alavi, S. (2014). Physico-chemical properties of Fortified Blended Foods developed using extrusion. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at New Orleans, LU USA June 21 – 24, 2014. (Poster).

Joseph, M., **Adedeji, A.A.**, and Alavi, S. (2014). Novel delivery mechanism for nutrition using sorghum based extruded pre-cooked ‘beans’. Institute of Food Technology (IFT), Food Engineering Division Poster Session. Held at Chicago, IL USA. July 13 – 16, 2013. Poster No. **031-15**. (Poster).

Louisiana

Song L. and **Aryana K.J.** 2014. Reconstituted yogurt from yogurt cultured milk powder mix has better overall characteristics than reconstituted yogurt from commercial yogurt powder. *Journal of Dairy Science* 97:6007-6015.

Vargas L. and **Aryana K.J.** 2014. Whey protein isolate improves acid tolerance and bile tolerance of *Streptococcus thermophilus* ST-M5 and *Lactobacillus delbrueckii* ssp. *bulgaricus* LB-12. *Journal of Dairy Science* (submitted).

Najim N and **Aryana K.J.** 2013. A mild pulsed electric field condition that improves acid tolerance, growth and protease activity of *Lactobacillus acidophilus* LA-K and *Lactobacillus delbrueckii* ssp. *bulgaricus* LB-12. *Journal of Dairy Science* 96: 3424-3434.

Abigail Greenbaum and **K J. Aryana** 2013. Effect of honey a natural sweetener with several medicinal properties on the attributes of a frozen dessert containing the probiotic *Lactobacillus acidophilus*. *Open Journal of Medical Microbiology* 3: 95-99.

Xiang, B., Sundararajan, S., Mis Solval, K., Espinoza, L., **Aryana, K.**, and S Sathivel. 2013. Effects of pulsed electric fields on physicochemical properties and microbial inactivation of carrot juice. *J. Food Process. & Preserve*. DOI: 10.1111/jfpp.12115

i. Abstracts, proceedings

L. Song* and **K. J. Aryana**, (2014) Characteristics of yogurt manufactured using reconstituted yogurt cultured milk powder compared to yogurt powder. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 497.

D. Olson, E. Gonzalez, M. Ponce, and **K. J. Aryana**, (2014). Effect of potassium sorbate and sodium benzoate concentrations on growth of cheese starter cultures. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 498 - 499.

M. Moncada*, C. Sabliov, C. Astete, and **K. J. Aryana**, 2(2014). Influence of submicronization of sodium chloride on the sensory characteristics of surface salted cheese crackers. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 499.

M. Moncada*, C. Sabliov, C. Astete, and **K. J. Aryana**, (2014). Submicronization of sodium chloride and its effect on the physico-chemical and microbiological characteristics of surface salted cheese crackers. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 499.

M. Sánchez-Vega and **K. J. Aryana** (2014). Influence of various health beneficial spices on some characteristics of yogurt culture bacteria and *Lactobacillus acidophilus* and sensory acceptability of spicy probiotic yogurt. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 499 - 500.

B. Mena and **K. J. Aryana**. (2014). Yogurt characteristics as effected by added lactose. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 500.

B. Mena and **K. J. Aryana** (2014). Influence of added lactose on some probiotic properties of yogurt culture bacteria. J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 500-501.

R. E. Brown and **K. J. Aryana**. (2014). Can prior subjection to pre-heating enhance the heat tolerance of mesophilic bacterial cultures? J. Dairy Sci. Vol. 97, E-Suppl. 1, pp 15.

S. Alqahtani, L. Simon, C. Astete, A. Alayoubi, P. W. Sylvester, S. Nazzal, Y. Shen, Z. Xu, A. Kaddoumi, **C. M. Sabliov**. Cell uptake, antioxidant and antiproliferative activity of entrapped α -tocopherol and γ -tocotrienol in poly (lactic-co-glycolic) acid (PLGA) and chitosan covered PLGA nanoparticles (PLGA-Chi). European Journal of Pharmaceutics. Submitted.

ii. Presentations

L. Song* and **K. J. Aryana**, (2014) Characteristics of yogurt manufactured using reconstituted yogurt cultured milk powder compared to yogurt powder. Abstract # M073. ADSA annual meeting July 20-24, Kansas City, Missouri.

D. Olson, E. Gonzalez, M. Ponce, and **K. J. Aryana**, (2014). Effect of potassium sorbate and sodium benzoate concentrations on growth of cheese starter cultures. Abstract # M076. ADSA annual meeting July 20-24, Kansas City, Missouri.

M. Moncada*, C. Sabliov, C. Astete, and **K. J. Aryana**, 2(2014). Influence of submicronization of sodium chloride on the sensory characteristics of surface salted cheese crackers. Abstract # M077. ADSA annual meeting July 20-24, Kansas City, Missouri. J. Dairy Sci. Vol. 97,

M. Moncada*, C. Sabliov, C. Astete, and **K. J. Aryana**, (2014). Submicronization of sodium chloride and its effect on the physico-chemical and microbiological characteristics of surface salted cheese crackers. Abstract # M078. ADSA annual meeting July 20-24, Kansas City, Missouri.

M. Sánchez-Vega and **K. J. Aryana** (2014). Influence of various health beneficial spices on some characteristics of yogurt culture bacteria and *Lactobacillus acidophilus* and sensory acceptability of spicy probiotic yogurt. Abstract # M079. ADSA annual meeting July 20-24, Kansas City, Missouri.

B. Mena and **K. J. Aryana**. (2014). Yogurt characteristics as effected by added lactose. Abstract # M080. ADSA annual meeting July 20-24, Kansas City, Missouri.

B. Mena and **K. J. Aryana** 2(2014). Influence of added lactose on some probiotic properties of yogurt culture bacteria. Abstract # M081. ADSA annual meeting July 20-24, Kansas City, Missouri.

R. E. Brown and **K. J. Aryana**. (2014). Can prior subjection to pre-heating enhance the heat tolerance of mesophilic bacterial cultures? Abstract # 31. ADSA annual meeting July 20-24, Kansas City, Missouri.

iii. Theses, dissertations

Marvin Moncada (May 2014). Reduced sodium delivery through submicronization of sodium chloride, its use in the manufacture of surface salted cheese crackers and the evaluation of physic-chemical, microbiological and sensory characteristics of cheese cracker. **Ph.D. dissertation**. (Major Professor **K. J. Aryana**).

Luis Vargas (Dec 2013). Influence of “added” whey protein isolate on probiotic properties of yogurt culture bacteria and yogurt characteristics. **Masters Thesis**. (Major Professor **K. J. Aryana**).

Lacey Simon (May 2014). Bioavailability of alpha-tocopherol entrapped with poly (d,l-lactide-co-glycolide) (PLGA) and PLGA-chitosan nanoparticles. (Major Professor **C. M. Sabliov**).

Michigan

Greiby, I., Mishra, D.K., Dolan, K.D. 2014. Inverse method to sequentially estimate temperature-dependent thermal conductivity of cherry pomace during nonisothermal heating. *J. Food Eng.* 127: 16-23.

Feng, X. Tang, Y., Dolan, K.D. 2014. Construction of a parsimonious kinetic model to capture microbial dynamics via parameter estimation. *Inverse Problems in Science & Engineering.* 22(2): 309-324.

Siddiq M, Harte JB, Beaudry RM, Dolan, K.D., Singh, S.P., Saha K. 2014. Physicochemical properties of whole fruit and sensory quality of fresh-cut apples pre-treated with 1-methylcyclopropene (1-MCP). *Intl J Food Properties* 17(5): 1081-1092.

Garcés-Vega F, Marks BP. 2014. Use of simulation tools to illustrate the effect of data management practices for low and negative plate counts on the estimated parameters of microbial reduction models. *Journal of Food Protection.* 77(8):1372-1379.

Buchholz AL, Davidson GR, Marks BP, Ryser ET. 2014. Tracking an *Escherichia coli* O157:H7 contaminated batch of leafy greens through a pilot-scale fresh-cut processing line. *Journal of Food Protection.* 77(9):1487-1494.

Medellin-Lopez M, Sansawat T, Strasburg G, Marks BP, Kang I. 2014. Cold-batter mincing of hot-boned/crust-freezing air chilled turkey breast improved meat turnover time and product quality. *Poultry Science.* 93:711-718

Zeng W, Vorst K, Brown W, Marks BP, Jeong S, Perez-Rodriguez F, Ryser ET. 2014. Growth of *Escherichia coli* O157:H7 and *Listeria monocytogenes* in packaged fresh-cut romaine mix at fluctuating temperatures during commercial transport, retail storage, and display. *Journal of Food Protection.* 77(2):197-206.

Breslin TJ, Tenorio-Bernal MI, Marks BP, Booren AM, Ryser ET, Hall NO. 2014. Evaluation of Salmonella thermal inactivation model validity for slow cooking of whole-muscle meat roasts in a pilot-scale oven. *Journal of Food Protection.* In press.

Smith DF, Marks BP. 2014. Effect of rapid product desiccation or hydration on thermal resistance of Salmonella Enteritidis PT 30 in wheat flour. *Journal of Food Protection.* Accepted for publication.

Ruan, Z., Zanotti, M., Archer, S., Liao, W., Liu, Y. 2014. Oleaginous fungal lipid fermentation on combined acid- and alkali-pretreated corn stover hydrolysate for advanced biofuel production. *Bioresource Technology Bioresource Technology* 163:12-17.

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ii. Abstracts, proceedings

Dolan, K.D. (presenter), Tang, Y., and Liao, W. 2014. "Improvement of bioengineering courses through systems biology and bioprocess modeling."

Paper ID #10178. American Society for Engineering Education, June 16th, Indianapolis.

- Dolan, K.D. 2014. "Systematic method for dynamic microbial modeling." Conference of Food Engineering. April 7. Omaha, Nebraska.
- Muramatsu, Y. and Dolan, K.D. 2014. "Rapid inverse method to measure thermal diffusivity of low-moisture foods." IFT Annual Meeting, June 22. New Orleans, LA.
- Muramatsu, Y. and Dolan, K.D. 2014. "Factors Influencing Design of Test Cell for Microbial Inactivation Studies in Low-Moisture Foods Authors." Conference of Food Engineering. April 7. Omaha, Nebraska.
- Dolan, K. D. (Presenter & Author), Mishra, D. K. (Presenter & Author). 2013. "Inverse Problems and Parameter Estimation as it applies to Modeling". Institute for Thermal Processing Specialists, March 8.
- Dolan, K. D. (Presenter & Author), Greiby, I. (Author Only), Mishra, D. (Author Only). 2013. "Estimate the Kinetic Parameters of anthocyanins degradation in cherry pomace for different constant moisture contents". IFT 2013 Annual Meeting, Chicago, July 14.
- Dolan, K. D. (Presenter & Author), Mishra, D. K. (Presenter & Author). 2013. "A user-friendly software interface for parameter estimation in the food industry". Inverse Problems Symposium 2013, Huntsville, AL, June 11.
- Dolan, K. D. (Presenter Only). 2013. "Presentation Title: Nature of Food Hazards: Microbial, Chemical, Physical". International Food Safety Course, July 24.
- Mishra, D. K. (Presenter & Author), Dolan, K. D. (Author Only), 2013. "A Novel Instrument for Rapid Estimation of Temperature-Dependent Thermal Properties up to 140°C". Inverse Problems Symposium 2013, Huntsville, AL, June 11.
- Dolan, K. D. (Presenter & Author), Mishra, D. (Author Only), Valdramidis, V. (Author Only). 2013. "A Decision Support Tool for Multi-Quality Forward and Inverse Commercial Food Problems". International Conference on Predictive Modelling in Food, Paris, France, September 18.
- Mishra, D.K. (Presenter and Author), Dolan, K.D. (author). 2013. "Use of scaled sensitivity coefficient relations for intrinsic verification of numerical codes and parameter estimation. Inverse Problems Symposium 2013, Huntsville, AL, June 10.
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Hildebrandt I, Marks B, Ryser E, Villa-Rojas R, Tang J, Buchholz S. 2014. Impact of inoculation procedures on thermal resistance of *Salmonella* in wheat flour and associated repeatability of results. Abstract P1-162. Presented at the Annual Meeting of the International Association for Food Protection, Indianapolis, IN. Aug 3-6, 2014.

Jeong S, Marks B, Ryser E. 2014. Effect of almond product structure on x-ray inactivation kinetics of *Salmonella*. Abstract P1-174. Presented at the Annual Meeting of the International Association for Food Protection, Indianapolis, IN. Aug 3-6, 2014.

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- Jeong S, Marks B, Ryser E. 2014. Minimizing *Salmonella* attachment to dry surfaces through use of high-frequency mechanical vibration. Abstract P3-132. Presented at the Annual Meeting of the International Association for Food Protection, Indianapolis, IN. Aug 3-6, 2014.
- Garces-Vega F, Marks B. 2014. Data management practices for low and negative plate counts affect the confidence intervals of the estimated parameters of microbial reduction models. Abstract P3-157. Presented at the Annual Meeting of the International Association for Food Protection, Indianapolis, IN. Aug 3-6, 2014.
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- Suehr QJ, Jeong S, Marks BP, Ryser ET. 2014. Discrete element modeling of bacterial cross contamination during almond processing. ASABE Paper 1900582. Presented at the Annual International Meeting of the American Society of Agricultural and Biological Engineers. July 13-16, 2014.
- Shaaban M, Beaudry R, Marks B, Yousef K. 2014. Modeling heat profile of sugar beet pile during storage campaign. ASABE Paper 1942774. Presented at the Annual International Meeting of the American Society of Agricultural and Biological Engineers. July 13-16, 2014.
- Li, Q., Liu, Y., Liao, W., Powers, W. 2014. Integrated wet scrubbers-microalgae culture system: design and evaluation. Oral presentation at the 2014 ASABE Annual International Meeting, Montreal, Canada. July 13-17.

- Li, Q., Liu, Y., Liao, W., Powers, W. 2014. Cultivating microalgae using animal production exhaust air as a nutrient source – a laboratory scale study. Oral presentation at the 2014 ASABE Annual International Meeting, Montreal, Canada. July 13-17.
- Liu, Z., Liao, W., Liu, Y. 2014. A new anaerobic digestion effluent utilization system integrating electrocoagulation and algal accumulation. Oral presentation at the 2014 ASABE Annual International Meeting, Montreal, Canada. July 13-17.
- Ruan, Z.H., Zanotti, M., Liao, W., Liu, Y., 2014. Development of an advanced biological process to convert lignocellulose into lipid-based fuel. Oral presentation at the 2014 ASABE Annual International Meeting, Montreal, Canada. July 13-17.
- Wang, X.Q., Ruan, Z.H., Sheridan, P., Boileau, D., Liu, Y., Liao, W., 2014. Strategies of two-stage photoautotrophic cultivation for improving carbohydrate production in *Chlamydomonas reinhardtii*, 36th Symposium on Biotechnology for Fuels and Chemicals, Clearwater Beach, Florida, April 28-May 1.
- Ruan, Z.H., Zanotti, M., Liao, W., Liu, Y., 2014. Development of an advanced biological process to convert lignocellulose into lipid-based fuel, 36th Symposium on Biotechnology for Fuels and Chemicals, Clearwater Beach, Florida, April 28-May 1,.
- Wang, X. Q., Ruan, Z. H., Liu, Y., Liao, W., 2013. Transgenic expression of a bacterial thermophilic amylase in the *Chlamydomonas reinhardtii* chloroplast, Recent Advances in Fermentation Technology (RAFT) 10, Marco Island, Florida, Nov 3-6.
- Zanotti, M., Ruan, Z.H., Liu, Y., Liao, W., 2013. Conceptual mass and energy balance for solar-powered fungal biodiesel refinery on lignocellulosic feedstock, ASABE Annual International Meeting, Kansas city, Missouri, Jul 21-24.
- Liu, Z., Liao, W., **Liu, Y.** 2013. Reclaiming Water from Anaerobic Digestion Effluent using Electrocoagulation Flotation (ECF) Treatment. Oral presentation at ASABE 2013. Kansas City, Missouri. July 21 – July 24.

iv. Theses, dissertations

Danielle F. Smith. M.S. Thesis. Modeling the Effect of Water Activity on Thermal Resistance of Salmonella in Wheat Flour. *Engineer for Cargill, Nebraska.*

Zhenhua Ruan Ph.D Dissertation: Developing novel biological process to convert lignocellulose into lipid-based biofuel. 2014. *Fermentation Engineer for LanzaTech, Soperton, GA.*

v. Book chapters

Liao W, Liu Y, Hodge D. 2014. Biorefineries Integrated Biochemical Processes for Liquid Biofuels: Chapter 13 Integrated Farm-Based Biorefinery. Qureshi, N., Hodge, D., Vertes, A. (Ed.), Elsevier, New York, NY. ISBN: 978-0-444-59498-3.

Missouri

i. Journal papers (follow style guide for JFS, copied below)

Zhang, S., Hsieh, F. and Vardhanabhuti, B. 2014. Acid-induced gelation properties of heated whey protein-pectin soluble complex (Part 1): Effect of initial pH. *Food Hydrocolloids*, 36(1):76-84.

ii. Abstracts, proceedings

iii. Presentations

Textured vegetable protein. Department of Applied Biology and Chemical Technology, Hong Kong Polytechnic University, Aug 13, 2014.

iv. Theses, dissertations

Tang, J. 2013. Physicochemical and sensory properties of soymilk from five soybean lines. MS Thesis, University of Missouri, Columbia, MO 65211.

Xing, R. 2014. Polyurethane foams containing renewable castor oil replacement. MS Thesis, University of Missouri, Columbia, MO 65211.

Lin, C.Y. 2014. Physicochemical properties of soy- and pea-based imitation sausage patties. MS Thesis, University of Missouri, Columbia, MO 65211.

Minnesota

Shaobo Deng, Paul Chen, Yun Li, Xiaochen Ma, Yanling Cheng, Xiangyang Lin, Lloyd Metzger, and Roger Ruan. 2014. Non-thermal pasteurization of milk using CHIEF technology. In *Emerging Dairy Processing Technologies: Opportunities for the Dairy Industry*. Wiley-Blackwell and the Institute of Food Science and Technology, UK.

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Chen, P., Li, Y., Cui, T., and Ruan, R. 2013. Nanoparticles based sensors for rapid detection of foodborne pathogens. *International Journal of Agricultural & Biological Engineering*. 6(1):1-7.

Shi, A., Z. Du, X. Ma, Y. Cheng, M. Min, S. Deng, P. Chen, D. Li, R. Ruan. 2013. Production and evaluation of biodiesel and bioethanol from high oil corn using three processing routes. *Bioresource Technology* 128:100-106.

Cheng Yixin, Zhang Jiangsheng, Wang Zhaolong, Liu Yuhuan, Ruan Rongsheng, 2013. Low field NMR study on changes of water holding capacity of resistant starch in yogurt during storage. *Science and Technology of Food Industry* 10: 93-96.

Wang Ying, Zhang Jingsheng, Cheng Xin, Liu Yuhuan, Ruan Rongsheng, Wen Pingwei, 2013. NMR studies on the impact of different rinsing processes on grass carp surimi. *Science and Technology of Food Industry* 11: 255-258.

Yu Ziping, Peng Hong, Lin Dan, Hu Zhengrong, Wang Na, Ruan Rongsheng, Liu Yuhuan, Zhang Jingsheng, 2013. Alkali fractionation of bamboo hemicellulose and structural characterization. *Journal of Northeast Forestry University* 2: 80-85.

Ma, W., Y. Liu, R. Ruan, X. Jiang, Y. Wang, Y. Wan, X. Wu, Y. Li. 2013. Aqueous extraction of Chinese tallow seeds oil. *Advanced Materials Research* 608-609(2013):328-332.

iv. Theses, dissertations

Fida Hussain Ph.D. in Biological Sciences May, 2014
Islamia College Peshawar (A Pakistan Public Sector University)
Thesis: Local bio-prospecting for promising microalgal strains and their application in CO₂ biomitigation

Zhen Wang M.S. Food Science December, 2013
Thesis: Utilization of oil crop residues for enhanced algae based production of lipids, polyunsaturated fatty acids, and protein.

Nebraska

Journal papers:

Chen, J., K. Pitchai, D. Jones, J. Subbiah. 2015. Effect of decoupling electromagnetics from heat transfer analysis on prediction accuracy and computation time in modeling microwave heating of frozen and fresh mashed potato. *Journal of Food Engineering*. 144, 45-57.

Chen, J., K. Pitchai, S. Birla, M. Negahban, D. Jones, J. Subbiah. 2014. Heat and mass transport during microwave heating of mashed potato in domestic oven – model development, validation, and sensitivity analysis. *Journal of Food Science*. 79(10):1991-2004.

Chen, J., K. Pitchai, S. Birla, R. Gonzalez, D. D. Jones, J. Subbiah. 2014. Development of a Multitemperature Calibration Method for Measuring Dielectric Properties of Foods, *IEEE Transactions on Dielectrics and Electrical Insulation*. Accepted.

Pitchai, K., Chen, J., Birla, S., Gonzalez, R., Jones, D., Subbiah, J. 2014. A microwave heat transfer model for a rotating multi-component meal in a domestic oven: Development and validation. *Journal of Food Engineering*. 128: 60-71.

Boreddy, S.R., S.L. Birla, G. Froning, H. Thippareddi, and J. Subbiah. 2014. Effect of radio frequency assisted thermal processing on quality and functional properties of egg white powder. *Transactions of the ASABE* (Accepted).

Presentations:

Chen, J., K. Pitchai, D. Jones, and J. Subbiah. 2014. Modeling the Effect of Headspace Steam on Microwave Heating Performance of Mashed Potato. *COMSOL Conference Proceedings*, Oct 8-10, Boston, MA.

Chen, J., K. Pitchai, S. Birla, M. Negahban, D. Jones, and J. Subbiah. 2014. Heat and mass transport during microwave heating of mashed potato in domestic oven – sensitivity analysis. *Conference of Food Engineering*, April 7 – 9, Omaha, Nebraska, USA.

Chen, J., K. Pitchai, D. Jones, J. Subbiah. 2014. Effect of decoupling electromagnetics from heat transfer analysis on prediction accuracy and computation time in modeling microwave heating of frozen and fresh mashed potato. *Conference of Food Engineering*, April 7 – 9, Omaha, Nebraska, USA.

Lau S.K., Subbiah J. 2014. Dielectric Properties and Thermal Conductivity of Peanut Butter. Presented at the IMPI 48th Annual Microwave Power Symposium – June 18-20, 2014 – New Orleans, LA.

Lau S.K., Thippareddi, H., Subbiah J. 2013. Development and validation of a finite element heat transfer model for pasteurizing shell eggs with radio frequency heating. Presented at the IFT 2013 Annual Meeting & Food Expo – July 13-16 – Chicago, IL.

Lau S.K., Subbiah J. 2014. Dielectric Properties and Thermal Conductivity of Peanut Butter. *Proceedings of 2014 IMPI 48th Annual Microwave Power Symposium – June 18-20, 2014 – New Orleans, LA.*

Pitchai, K., Chen, J., Birla, S., Gonzalez, R., Jones, D., Subbiah, J. 2014. Simulation of microwave heating of a frozen lasagna meal. *Conference of Food Engineering (COFE)*, April 7-9, Omaha, NE.

Pitchai, K., Chen, J., Jones, D., and Subbiah, J. 2014. Modeling microwave heating of foods in domestic ovens incorporating electromagnetic frequency spectrum. *International Microwave Power Institute (IMPI) 48th symposium*, June 18-20, New Orleans, LA,

Boreddy, S.R., S.L. Birla, G. Froning, H. Thippareddi, and J. Subbiah. 2014. Functional properties of standard and high gel egg white powder treated by radio frequency assisted thermal processing. Paper presented in the poster session of *Conference of Food Engineering* held at Omaha, Nebraska, USA during April 7-9, 2014.

New Jersey

Bhide, S., Karwe, M.V., Schaffner, D.W. 2014. Effect of surface roughness on microbial inactivation efficacy of Cold Atmospheric Pressure Plasma. NYIFT Poster Presentation Competition, New Brunswick, NJ, February 2014.

Bhide, S., Karwe, M.V., Schaffner, D.W. 2014. Effect of surface roughness on microbial inactivation efficacy of Cold Atmospheric Pressure Plasma. 2014 International Nonthermal Processing Workshop/Short Course – Poster Session, The Ohio State University, OH, October, 22-24, 2014.

Nicole, C., Karwe, M.V., Schaffner, D.W. 2014. Effectiveness of reactive species generated by cold atmospheric pressure plasma from air and nitrogen gas in inactivating *Enterobacter aerogenes*. 2014 International Nonthermal Processing Workshop/Short Course – Poster Session, The Ohio State University, OH, October, 22-24, 2014.

Maldonado, J., Nair, A., Cuitiño, A., Schaffner, D.W., Karwe, M.V. 2014. Process Non-Uniformity during High Hydrostatic Pressure Processing of Heterogeneous Foods. 2014 International Nonthermal Processing Workshop/Short Course – Poster Session, The Ohio State University, OH, October 22-24, 2014.

New Mexico

NMSU Learning Games Lab. (2014). Killing Pathogens on Leafy Greens: Ozone Sanitizing During Transport or Cooling [Video file].
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NMSU Learning Games Lab. (2014). Killing Pathogens on Leafy Greens: Liquid Sanitizing plus Gaseous Sanitizing [Video file].
https://www.youtube.com/watch?v=0t5QarVsyBY&index=3&list=PLAfTd1WG38jgF7U8SpyN-7V_Sr6qP6HdH

NMSU Learning Games Lab. (2014). Killing Pathogens on Leafy Greens: How Dirt Impacts the Sanitizing Process [Video file]. https://www.youtube.com/watch?v=-ZsQcNvqPlc&index=4&list=PLAfTd1WG38jgF7U8SpyN-7V_Sr6qP6HdH

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Playlist: https://www.youtube.com/playlist?list=PLAftd1WG38jgF7U8SpyN-7V_Sr6qP6HdH

New York

Publications

Warning A, Verboven P, Nicolai B, van Dalen G, Datta AK. 2014. Computation of mass transport properties of apple and rice from X-ray microtomography images. *Innovative Food Science and Emerging Technologies* (In Press with electronic version at <http://dx.doi.org/10.1016/j.ifset.2013.12.017>)

Juneja V, Mukhopadhyay S, Marks H, Mohr TB, Warning A, Datta A. 2014. Predictive thermal inactivation model for effects and interactions of temperature, NaCl, sodium pyrophosphate and sodium lactate on *Listeria monocytogenes* in ground beef. *Food and Bioprocess Technology*, 7(2):437-446.

Arias-Mendez A, Warning A, Datta AK, Balsa-Canto E. 2013. Quality and safety driven optimal operation of deep-fat frying of potato chips. *J of Food Engineering*, 119(1):125-134.

Warning A, Datta AK. 2013. Interdisciplinary engineering approaches to study how pathogenic bacteria interact with fresh produce. *J of Food Engineering*, 114(2013):426-448.

Presentations

M. Walkling-Ribeiro, I. Aprodu, M.V. Karwe and C.I. Moraru. 2014. Modification of the functionality of micellar casein concentrates by changing the structure of casein micelles using high pressure processing. Annual Meeting of ADSA, Kansas City, MO, July 2014

D. Zhao, J. J. Churey, O. Padilla-Zakour, R. W. Worobo and C. I. Moraru. 2014. Efficient Reduction of *Alicyclobacillus acidoterrestris* from Apple Cider by Combining Microfiltration with Ultraviolet Treatment. Annual Meeting of IFT, New Orleans, LA, June 2014

M. Walkling-Ribeiro, I. Aprodu, M.V. Karwe and C.I. Moraru. 2013. Changes in Physicochemical Properties of Micellar Casein Concentrates Induced by High Hydrostatic Pressure. International Nonthermal Processing Workshop, Florianopolis, Brazil, 2013.

J. Usaga Barrientos, D. Zhao, Q. Wang, S. M. Markland, O. I. Padilla-Zakour, R. W. Worobo, K. E. Kniel and C. I. Moraru. 2013. Efficient Reduction of *Cryptosporidium parvum* Oocysts from Apple Cider by Combining Microfiltration with Ultraviolet Treatment. Annual Meeting of IAFP, Charlotte, NC, July 2013

Taherkhani, P. and A. K. Datta. 2014. Simulation of the Taste Perception Intensity Based on the Stimulant Concentration. IFT annual meeting, New Orleans, LA, Jun 14.

Taherkhani, P. and A. K. Datta. 2014. Prediction of the Sensory Time-Intensity Profile through the Modeling of the Taste Compounds Transport. Conference of Food Engineering, Omaha, NE, Apr 14.

- Kadam, S. A. and A.K. Datta. 2014. Microscale modeling of mechanical property changes during thermal processing of carrot tissue. Conference of Food Engineering (CoFE), Omaha, NE, April 7-9.
- Warning, A., Datta, A.K. 2014. Fresh produce safety during hydrocooling: an engineering model. ASABE Annual Meeting July 13-16, 2014 in Montreal, QC Canada.
- Warning, A., Verboven, P., Nicolai, B., van Dalen, G., Datta, A.K., 2014 Computation of Mass Transport Properties of Apple and Rice from X-ray Microtomography Images. ASABE conference July 13-16, Montreal, QC Canada.
- Warning, A., Datta, A.K., 2014 Extending Engineering Simulations to Scientists: Food Safety and Quality Prediction Using COMSOL LiveLink™ for Excel® IFT conference June 21-24, New Orleans, LA, USA.
- Warning, A., Arquiza, JMR. and Datta, A. K. 2014. A Multiphase Porous Medium Transport Model with Distributed Sublimation Front to Simulate Vacuum Freeze Drying. IFT conference June 21-24, New Orleans, LA, USA.
- Warning, A., Verboven, P., Nicolai, B., van Dalen, G., Datta, A.K., 2014 Computation of Mass Transport Properties of Apple and Rice from X-ray Microtomography Images. Conference of Food Engineering April 7-9, Omaha, Nebraska, USA.
- Gulati, T. and A.K. Datta. 2014. "Development of a fundamentals-based model to understand microwave drying of foods." 6th Annual BEE Research Symposium, Cornell University, Ithaca, NY, February 7.
- Gulati, T., Jerez, M.J.O. and A.K. Datta. 2014. "A quantitative, first-principles based understanding of Refractance Window™ drying", Conference of Food Engineering (CoFE), Omaha, NE, April 7-9.
- Zhu, H., Gulati, T. and A.K. Datta. 2014. "Modeling and experiments for microwave drying of potato spheres". Conference of Food Engineering (CoFE), Omaha, NE, April 7-9.
- Gulati, T., Zhu, H. and A.K. Datta. 2014. Texture Development During Microwave Drying: A 3D Thermo-Hydro-Mechanical Model for Microwave Drying of Potatoes. IFT Annual Meeting, New Orleans, LA, June 22-26.
- Gulati, T., Kadam, S. and A.K. Datta. 2014. Transport and Deformation During Hot Air Puffing of Rice Kernels. IFT Annual Meeting, New Orleans, LA, June 22-26.
- Datta, A.K., Gulati, T., Warning, A., 2014 Beyond Temperature, Moisture and Pressure: Modeling Quality and Safety Conference of Food Engineering April 7-9, Omaha, Nebraska, USA.
- Warning, A., Datta, A.K., 2014 Extending Engineering Simulations to Scientists: Food Safety and Quality Prediction using COMSOL LiveLink™ for Excel® Conference of Food Engineering April 7-9, Omaha, Nebraska, USA.
- Gulati, T. and A. K. Datta. 2013. Modeling flow and deformation during puffing of single rice kernels. COMSOL Conference, Boston, MA, October 9-11.
- Zhu, H., Gulati, T. and A. K. Datta. 2013. Three dimensional (3D) modeling of heat and mass transfer during microwave drying of potatoes". COMSOL Conference, Boston, MA, October 9-11.

Ohio

Kamonpatana, P., Mohamed, H., Shynkaryk, M., Heskitt, B.F., Yousef, A.E., and Sastry, S.K. 2013. Mathematical modeling and microbiological verification of ohmic heating of a multicomponent mixture of particles in a continuous flow ohmic heater system with electric field parallel to flow. *J. Food Science* 78(11):E1721-E1734.

Mercali, G.D., Schwartz, S.J., Marczak, L.D.F., Tessaro, I.C., and Sastry, S.K. 2014. Ascorbic acid degradation and color changes in acerola pulp during ohmic heating: effect of electric field frequency. *J. Food Engineering* 123: 1-7.

Park, S.H., Balasubramaniam, V.M., and Sastry, S.K. 2014. Quality of Shelf-Stable Low-Acid Vegetables Processed Using Pressure-Ohmic-Thermal Sterilization. *LWT-Food Science and Technology* 57(1):243-252.

Mercali, G.D., Schwartz, S.J., Marczak, L.D.F., Tessaro, I.C., and Sastry, S.K. 2014. Ascorbic acid degradation in acerola pulp and acerola serum during ohmic heating: effect of electric field frequency and solids content. *J. Agric and Food Chemistry* 62(25):5865-5870.

Agila A, S Barringer. 2013. Effect of Adulteration versus Storage on Volatiles in Unifloral Honey from Different Floral Sources and Locations. *J Food Sci* 78(2):C184-191.

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vii. Other (i.e., media)

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Patents

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V. Collaborations

V.M. Puri (Penn State), R.E. Graves (Penn State), H. Gourama (Penn State), J.M. Regan (Penn State), N.M. Keklik (Cumhuriyet University)

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ii. Presentations

iii. Theses, dissertations

Theses:

Qu, B. 2014. Thesis title: *Casein-maltodextrin Conjugates as Emulsifiers for Preparation of Structured Calcium Carbonate Particles as Fat Globule Mimetics*. Department of Food Science and Technology, the University of Tennessee.

Shi, X. 2014. Thesis title: *The Effect of Soluble Soybean Polysaccharide on Crystallization Behavior of Lactose*. Department of Food Science and Technology, the University of Tennessee.

Dissertations

Wang, W. 2013. Dissertation title: *Whey Proteins Cross-linked by Transglutaminase or Glycated with Maltodextrin: Physicochemical Bases of the Improved Heat Stability*. Department of Food Science and Technology, the University of Tennessee.

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v. Other (i.e., media)

Washington

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Escherichia coli population on fruit surfaces using ultraviolet-C light: Influence of surface characteristics, *Food and Bioprocess Technology* 6: 2959-2973

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Bhunia, K., Rasco, B., Tang, J., and Sablani, S. S. 2014. Understanding package film oxygen transmission rate on lipid oxidation and oxygen reduction potential of pasteurized blue mussels (*Mytilus edulis*) in red sauce: a storage study, *Institute of Food Technologists* (IFT) Annual meeting, New Orleans, LA, June 21-24

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Publications

- Lim S, Gunasekaran S, Imm JY. 2012. Gelatin-templated gold nanoparticles as novel time-temperature indicator. *J Food Sci* 77:N45-N9
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ii. Presentations

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iv. Theses, dissertations

- Daw, Emily, Impact of protein source and concentration on partial coalescence and other textural attributes of ice cream, MS Thesis, University of Wisconsin-Madison (2013)
- Miller, Liz, Effects of Crystal Content on Caramel Texture, MS Thesis (2013)

v. Other (i.e., media)

- Hartel RW, Hartel AK. 2014. **Candy Bites: The Science of Sweets**, Spring Publ., NY.