

# Alejandra Ramirez-Hernandez

Lubbock, TX | C: +1 402-304-5727  
[alejandra.ramirez-hernandez@ttu.edu](mailto:alejandra.ramirez-hernandez@ttu.edu)

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## QUALIFICATIONS SUMMARY

Five years of graduate school research working on food safety microbiology. Major areas of experience, strengths, and skills include microbiology, working knowledge of food safety and food security, molecular biology techniques, new food processing technologies, antimicrobial resistance in pathogenic bacteria, food safety training programs. Moreover, strong communications skills (Spanish and English), ability to manage and conduct projects, and personal, enthusiasm and team-oriented perspective, motivate, active, productive, responsible and creative thinking.

## EDUCATION

**Doctor of Philosophy (Ph.D.) Animal Science** (Area of Specialization: Food Microbiology and Food Safety). Minor in Global Food Security. Animal and Food Sciences Department. Texas Tech University; Lubbock, TX. Expected Graduation: December 2018.

**Master of Science (MS) in Food Science and Technology** (Area of Specialization: Food Microbiology). August 2014. Department of Food Science and Technology. University of Nebraska-Lincoln; Lincoln, NE.

**Bachelor of Engineering (BE) in Agro-industrial Production Engineering.** (Area of Specialization: New Processing Technologies). August 2012. University of La Sabana; Bogota-Colombia.

## PUBLICATIONS

**Ramirez-Hernandez, A.,** Bugarel, M., Sanjay K, Harshavardhan T, Brashears, M.M, Sanchez-Plata, M.X. Antimicrobial Resistant Profiles and Whole Genome Sequencing Analysis of Pathogens Isolated from Chicken Carcasses and Parts Collected at Different Stages During Processing. *Under Review Applied Environmental Microbiology*, 2018.

**Ramirez-Hernandez, A.,** Inestroza, B., Parks, A., Brashears, M. M., Sanchez-Plata, M. X., and Echeverry, A. (2017). Thermal Inactivation of *Salmonella* spp. in High-Fat Rendering Meat Products. *Journal of Food Protection*, 81 (1): 54-58.

**Ramirez-Hernandez, A.,** Mindy, M. M., Sánchez-Plata, M. (2017). Efficacy of Lactic Acid, Lactic Acid-Citric-Acid Blends, and Peracetic Acid to Reduce *Salmonella* on Chicken Parts Under Simulated Commercial Processing Conditions. *Journal of Food Protection*, 81 (1): 17-24.

**Ramirez-Hernandez, A.,** García-Varón, A., Sánchez-Plata, M. (2017). Microbial Profile of Three Poultry Processing Plants in Colombia. *Journal of Food Protection*, 80 (12): 1980-1986.

**Ramirez-Hernandez, A.,** Rupnow, J., Hutkins, R. (2015). Adherence Reduction of *Campylobacter jejuni* and *Campylobacter coli* Strains to HEp-2 cells by Mannan Oligosaccharides and High-Molecular-Weight Component of Cranberry Extract. *Journal of Food Protection*, 8: 1496-1505.

Alejandra **RAMÍREZ H**, Fabián L. MORENO M, Ruth Y. RUIZ. 2012. Crioconcentración en bloque de soluciones acuosas de café. (Block-freeze concentration of aqueous coffee solutions). Revista de la Facultad de Química Farmaceutica VITAE 19 (supl. 1), S54-S56. Medellin, Colombia

## PROFESSIONAL EXPERIENCE

**Graduate Student-Research Assistant**, Texas Tech University, Animal and Food Sciences, Jan 2015-Present. Advisors: Dr. Mindy Brashears, and Dr. Marcos X. Sanchez-Plata.

- Main research project in antimicrobial-resistant profiles and whole genome sequencing analysis of pathogens isolated from chicken carcasses and chicken part rinsate samples collected at different stages during processing.
- Secondary research project in the validation of the efficacy of organic acids interventions on chicken parts under simulated commercial processing conditions.
- Research project in the isolation and molecular identification of *Salmonella* spp. and *Campylobacter* spp. contamination in poultry processing plant.
- Support and conduct food safety programs in Central and Latin America.
- Support HACCP and cGMPs training in Central America.
- Undergraduate mentoring

**Pathogen Lab Manager**, Animal and Food Sciences Department. Texas Tech University. 2016- Present.

**Intern- Microbiology**, Nestle USA, Inc., July- Dec 2015. Supervisors: Dr. Jason Mann, and Dr. Chee Zheng.

- Main research project in the investigation of extended holding time of low acid ingredients for baby foods.

**Intern-Research Assistant**, Texas Tech University, International Center for Food Industry Excellence, Animal and Food Science Department, Sept- Nov 2014. Supervisor: Dr. Mindy Brashears.

- Main research project on the prevalence of *Salmonella* spp. in shrimp product from local grocery stores in Lubbock, TX.

**Graduate Student-Research Assistant**, University of Nebraska-Lincoln, Food Science and Technology Department, Aug 2012-Aug 2014. Advisor: Dr. Robert W. Hutkins, Co-Advisor: John Rupnow.

- Master thesis emphasized work done to evaluate the anti-adherence properties of non-digestible oligosaccharides against *Campylobacter jejuni* and *Campylobacter coli* in tissue culture cells.
- Teaching assistant of Food Microbiology Laboratory and Science of Food undergraduate and graduate level classes.

**Intern Student**, University of Nebraska-Lincoln, Food Science and Technology Department, 2012-Present. Advisor: Dr. Robert W. Hutkins

- Research on characterization and evaluation of the probiotic properties of *Bifidobacterium adolescentis*.

**Young Research Program**, Advance technologies group, University of La Sabana, Colombia. 2011-2012.

- Research on the evaluation of block freeze-concentration technique of coffee solutions.

## COURSEWORK

**Whole Genome Sequencing: A Tutorial and Hands-on Workshop to Help Understand This Emerging Technology.** International Association of Food Protection. Salt Lake City, UT. July 6-7, 2018.

**Quantitative Microbial Risk Assessment Interdisciplinary Instructional Institute.** University of Washington, Seattle, WA. August 4-14, 2017.

**Meat School en español.** Texas Tech University. Lubbock, TX. June 23-29, 2016.

**FSPCA Preventive Controls for Human Food Workshop.** Food Safety Preventive Controls Alliance. Texas Tech University. Lubbock, TX. June 13-15, 2016

**Poultry School *en español*.** University of Georgia-Athens. January 29- February 3, 2016.

**FSMA- Food Safety Modernization Act workshop.** Texas Tech University. Lubbock, TX. February 13, 2015.

**Implementation your company's HACCP plan.** University of Nebraska-Lincoln. Omaha, NE. July 8-10, 2014.

### HONORS

- Graduate Student International Research Award. Texas Tech University. April 2018.
- Doctoral Dissertation Completion Fellowship. Texas Tech University. March 2018.
- First place in the 16<sup>th</sup> Annual Graduate Student Research Poster Competition. Division in Natural Science. Texas Tech University, March 24<sup>th</sup>, 2017.
- Second Place in the Bod Albin Outstanding Ph.D. Graduate Student Research Award. Department of Animal and Food Sciences, Texas Tech University, April 2016. Lubbock, TX.
- 3- A Sanitary Standard Inc., 2015 Education Program, and Meeting. Student Travel Scholarship. May 2015, Milwaukee, WI.
- *AT&T Chancellor's Fellowship.* The honor is given to outstanding prospective students of Texas Tech University, January 2015. Lubbock, TX.
- Second place in the IFT Food Microbiology Division Graduate Research Paper Competition at the 2014 IFT Annual Meeting & Food Expo. New Orleans, LA.
- Achievement of excellence in the Department of Food Science and Technology at the University of Nebraska-Lincoln, 2014. Lincoln, NE.
- Academic proficiency scholarship awarded 100% scholarship for the entire course in Agro-industrial Production Engineering at University of La Sabana, 2010. Colombia
- Distinguished as outstanding student 2008, 2009, 2010 and 2011 in the program of Agro-industrial Production Engineering at University of La Sabana. Colombia.

### LANGUAGES

- Spanish-Native language
- English- Second language