Christine Xiaoji Liu

Christine is currently a PhD student at the University of Alberta in Food Microbiology. She is working under the supervision of Dr. Lynn McMullen in the Department of Agricultural, Food and Nutritional Science. Originally from Chengdu, China, Christine completed her B.Sc. (Hon.) in Biochemistry at the University of Saskatchewan and her M. Sc. in Food Science and Technology at the University of Alberta. Before she entered her PhD program, she had worked on projects in various fields in biosciences including pharmacology, cell biology, protein biochemistry and analytical chemistry. Her current doctoral project at the University of Alberta focuses on the microbial safety of sodium reduced ready-to-eat meat products. Her research involves examining the microbial community of retail deli meats formulated with different sodium contents, challenge studies to determine the impact of sodium reduction on the growth of Listeria monocytogenes, and defining the molecular mechanisms of Listeria monocytogenes under environmental stresses such as a biopreservative. Her research aims to identify the gene networks responsible for bacteriocin and salt resistance in Listeria to aid in the development of novel intervention methods. Following the completion of her PhD degree, Christine plans to expand her scope of knowledge in applied microbiology through in-depth molecular analysis of cross-bacterial species interaction and human-bacteria interaction, to bring a new era to the microbial safety of meat products.

Publications:

- Liu X, Vederas JC, Whittal RM, Zheng J, Stiles. ME, Carlson D, Franz CM, McMullen LM, van Belkum MJ. (2011) Identification of an N-terminal formylated, two-peptide bacteriocin from Enterococcus faecalis 710C. J. Agric. Food Chem. 59: 5602-8.

Presentations:

- Liu, X., P, Miller, P, Shand, D, Korber and L.M. McMullen. (2011) Improving the safety and competitiveness of lean, low sodium meat products. Canadian Meat Science Association Technical Symposium. May 4 to 6, 2011. Halifax, NS.
- Liu, X., J.S. Richardson. (2007) The effects of chronic exposure to antidepressant drugs (venlafaxine, mirtazapine and citalopram) on glutamate-induced excitotoxicity in SH-SY5Y cells in tissue culture. March 16, 2007.