

Department of Food Science and Agricultural Chemistry, McGill University Macdonald Campus  
21111 Lakeshore Road, Sainte-Anne-de-Bellevue, Québec, Canada H9X 3V9

## Education

**McGill University, Canada** **Sep. 2018 - present**

- Ph.D. candidate (fast-track from M.Sc.) in Food Science and Agricultural Chemistry

**Jiangnan University, P. R. China** **Sep. 2014 - June 2018**

- B.Sc. in Food Quality and Safety, School of Food Science and Technology
- GPA: 3.64 / 4.00 (3 / 63), Honors School student (top 3%), Undergraduate Outstanding Graduates (3%)

## Research Experience

**Ph.D. candidate** **Sep. 2018 - present**

**Department of Food Science & Agricultural Chemistry, McGill University, Ste-Anne-de-Bellevue, Canada**

**Supervisors: Dr. Jennifer Ronholm & Dr. Danielle Malo**

- Working on the interactions between foodborne pathogens and gut microbiome, specifically how *Salmonella enterica* influence gut microbiome with their type VI secretion systems, and how commensal bacteria respond to the attack, project funded by the Natural Sciences and Engineering Research Council of Canada (NSERC).
- Working on identification and characterization of novel *Salmonella enterica* type VI secretion systems, project funded by Fonds de recherche du Québec – Nature et technologies (FRQNT).
- Independently carrying out 16S rRNA sequencing to analyze microbiome for collaborators from other labs.

**Research assistant** **Oct. 2015 - June 2018**

**Laboratory of Gut Microbiota and Health, Jiangnan University, Wuxi, P. R. China**

**Supervisor: Dr. Zhennan Gu**

- Thesis: *Antimicrobial Mechanisms of Clove Alcohol Extract*. Awarded Undergraduate Excellent Thesis (5%).
- In charge of an undergraduate research project (group leader) *Herbal Mouthwash with Anti-periodontitis Properties*, funded by National Training Program of Innovation for Undergraduates of China (¥14,000).
- Extracted effective components from natural herbs, and worked on bacteriostatic agent application.
- Characterized the effect of antimicrobial activity exerted by traditional Chinese herbs extract.
- Identified antibacterial mechanisms of herb extract on molecular level.

**R&D specialist intern** **June 2016 - Sep. 2016**

**Department of Food Science and Technology, Kasetsart University, Bangkok, Thailand**

**Supervisor: Dr. Sasitorn Tongchitpakdee**

- Project: *Development of Fiber-Enriched Snacks from the By-Product of Soy Sauce Processing*.
- Improved the formula of sea weeds and puffed foods using by-product of soy sauce processing.
- Conducted food characterization including hardness, moisture content and protein content.

**Research assistant** **Mar. 2015 - Jan. 2016**

**National Yellow Wine Engineering and Technology Research Center, Wuxi, P. R. China**

- Trained, selected (10 out of more than 100) and served on the panel of yellow wine sensory evaluation.
- Assisted in the development of yellow wine flavor wheel, and in the GC-MS content analysis.
- Supervised brewing process of a novel rice wine by conducting quality control on reducing sugar content.
- Awarded third prize in 2017 Excellent Paper Award (Group) in Technology Innovation Award issued by Chinese Institute of Food Science and Technology.

## **Internships**

### **Internship - SDA Cooking Nutriology Research Laboratory, Midea Group Co., Ltd, Foshan, China 2017**

- Conducted nutrient analysis and sensory evaluations of meals under different cooking conditions, to assist with the development of novel artificial-intelligent pots. The pots are now popular among different age groups.

### **Teaching assistant - New Oriental Education & Technology Group, Qingdao, China 2018**

- Worked as a teaching assistant in an *IELTS 6.5 class*. Help Chinese senior high school students improve their English skills by assisting classes and offering tutorials. The *IELTS* scores of the students have been greatly improved: 100% students obtained a score higher than 6.5; 50% higher than 7.0.

## **Awards and Honors**

- Fonds de recherche du Québec - Nature et technologies (FRQNT) doctoral research scholarship (\$21,000/year, \$70,000 in total), Fonds de recherche du Québec 2021-2024
- Provincial Merit Student, Jiangsu Provincial Department of Education, P. R. China 2018
- Municipal Merit Student, Wuxi Municipal Education Bureau, P. R. China 2017
- Clifford C.F. Wong Fellowship (\$20,000/year), McGill University 2020-2021
- Faculty Grad Excellence Award (\$50,000 in total), McGill University 2018-2022
- GREAT Award, Department of Food Science & Agricultural Chemistry, McGill University 2018
- Undergraduate outstanding graduates, Jiangnan University (3%) 2018
- Undergraduate excellent graduation thesis, Jiangnan University (5%) 2018
- Pacemaker to Merit Student, Jiangnan University (top 10 students each academic year) 2017
- First prize, Huayuan Packaging Scholarship (¥5,000), Jiangnan University (2 winners each year) 2015
- First prize, Huiyuan Yao Scholarship (¥6,000), Jiangnan University (6 winners each year) 2016
- Second prize, Starpro Scholarship (¥8,000), Jiangnan University (5 winners each year) 2017

## **Skills and Techniques**

- Skilled experimental techniques in next generation sequencing (Illumina MiSeq), microbiology, molecular biology, mouse manipulation, sensory evaluation, instrumental analysis (GC, HPLC, MS), food analysis etc.
- Skilled operation with Unix, Python, R, AutoCAD, Microsoft Office and Microsoft Visual Basic.

## **Certificates**

Juice HACCP Certification Kasetsart University, Cornell University & Thailand Ministry of Science Technology

Public Nutritionist - Senior Skill Level The Ministry of Human Resources and Social Security, P. R. China

## **Extra-curricular activities**

**Monitor Food Quality and Safety 1401 Sep. 2015 - Sep. 2016**

- The class was awarded Municipal Advanced Class (1/11 classes in the same year to receive this honor).

**Club President Shangxing Club in Honors School Sep. 2015 - June 2016**

- In charge of all voluntary activities of Honors School students.

**Group Leader Seasoning Club in School of Food Science & Technology Sep. 2014 - June 2015**

- Organized sauce DIY competitions which attracted more than 50 students.

**Departmental Ambassador Mac Grad Student Orientation Aug. 2019**

- Assisted orientation events and helped newly admitted graduate students adapt to graduate life.

**Volunteer Food Summit in China 2017 & 14<sup>th</sup> Annual Meeting of CIFST Nov. 2017**

**Volunteer Global Food & Beverage Innovation Collection Apr. 2017, Mar. 2018**