

Mairui Gao

Department of Animal Science, University of Connecticut, Storrs, CT 06269

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EDUCATION

- **University of Connecticut (UConn)** 2019.08 - Present
Ph.D. Student in Food Microbiology and Safety
Advisor: Dr. Mary Anne Amalaradjou
- **Sichuan University (SCU)** 2016.09 - 2019.06
M.S. in Food Science
Advisor: Dr. Weicai Zeng
- **Nanjing Agricultural University (NAU)** 2012.09 - 2016.06
B.S. in Food Science and Engineering

PRESENTATIONS

1. **M. Gao**, Y. Ren, R. Reddyvari, S. Lu, M. Amalaradjou*. Early probiotic application improves hatchability and hatchling quality of broiler chicks, **Oral Presentation**, Poultry Science Association Annual Meeting, 2022
2. **M. Gao**, M. Amalaradjou*. Promoting Chick Quality Using Probiotics, **Oral Presentation**, UConn CAHNR Graduate Student Research Forum, 2022
3. **M. Gao**, S. Lu, D. Kuttappan, M. Amalaradjou*. A Natural, Multi-hurdle Approach to Control *E. coli* O157:H7 on Alfalfa Seeds and Sprouts, **Poster Presentation**, American Society for Microbiology Annual Meeting, 2021
4. S. Lu, **M. Gao**, D. Kuttappan, M. Amalaradjou*. Biocontrol of *Salmonella* on Alfalfa Seeds and Sprouts Using a Multi Hurdle Approach, **Poster Presentation**, International Association for Food Protection Annual Meeting, 2021
5. D. Kuttappan, **M. Gao**, M. Amalaradjou*. Use of Lactic Acid Bacteria to Control *Listeria monocytogenes* on Apples during Simulated Storage Conditions, **Poster Presentation**, International Association for Food Protection Annual Meeting, 2020

PUBLICATIONS & MANUSCRIPTS IN PREPARATION

1. **M. Gao**[#], S. Lu[#], R. Reddyvari, Y. Ren, M. Amalaradjou*. Exposure to Alfalfa Sprouts Could Modify the Pathogenic Potential of *Salmonella* and *E. coli* (Co-first author), to be submitted in 2022

2. S. Lu[#], M. Gao[#], D. Kuttappan, Y. Ren, R. Reddyvari, M. Amalaradjou*, Biocontrol of *Salmonella* and *E. coli O157:H7* on Alfalfa Seeds and Sprouts Using a Multi Hurdle Approach (Co-first author), to be submitted in 2022
3. M. Gao, Y. Ren, R. Reddyvari, S. Lu, D. Kuttappan, M. Amalaradjou*. In Ovo Probiotic Spray Promotes Hatchability and Hatchling Quality of Broiler Chicks, to be submitted in 2022
4. M. Gao, M. Amalaradjou*, Probiotics Attenuate *Salmonella enterica* Enteritidis Virulence in vitro and in vivo, to be submitted in 2022
5. M. Gao, Q. Xu, W. Zeng*. Insights into Tenderization Role of Tea Polyphenol in Yak (*Bos grunniens*) Muscle, *Journal of Food Processing and Preservation*, 2020, 44 (5): e1443
(Top Cited Article, 2022)
6. M. Gao, Q. Xu, Q. He, Q. Sun, W. Zeng*. A Theoretical and Experimental Study: The Influence of Different Standards on the Determination of Total Phenol Contents in the Folin-Ciocalteu Assay, *Journal of Food Measurement and Characterization*, 2019, 13: 1349-1356

RESEARCH SKILLS

- **Molecular Biology:** DNA/RNA extraction, PCR, qPCR, NGS, microbial culture, cell culture
- **Bioinformatics:** Amplicon sequencing analysis, meta-genomic/transcriptomic analysis, regression analysis, correlation analysis
- **Programming Languages:** Bash, R
- **Work Experiences with Animals:** *C. elegans*, mice, poultry
- **Analytical and Computational Chemistry:** GC-MS, LC-MS, CD, NMR, protein extraction, bioactive compounds extraction, protein structure construction, structure-activity analysis

TEACHING & MENTORING

- **Guest Lectures:**
 1. Guest lecture “Fermentation: From Spoilage to Perfection” in Food Microbiology and Safety (ANSC 4341), UConn, Spring, 2022
 2. Guest lecture “Use Probiotics to Promote Chick Quality” in Principles of Poultry Science (ANSC 2271), UConn, Spring, 2022
- **Teaching Assistants:**
 1. Laboratory Animal Science (ANSC 3272), UConn, Spring, 2020

2. Animal Food Products: Dairy Technology (ANSC 3641), UConn, Spring, 2021
3. Food Microbiology and Safety (ANSC 4341), UConn, Spring, 2022

- **Undergraduates Mentoring:**

Joseph Brusca (2022); Phoebe Drupa (2022); Tishell Allen (2021); Advika Thandoni (2021); Kirsten Zwally (2020); Alayne Pabilonia (2020); Nicole Zapherson (2020); Lin Chen (2018); Qianda Xu (2018)

GRANTSMANSHIP

1. **Co-PI**, NE-SARE Graduate Student Grant (\$15,000), Use of Lactic Acid Bacteria to Control *L. monocytogenes* on Apples under Simulated Commercial Conditions, 2020-2022
2. **PI**, submitted but not awarded, Biocontrol approaches to control *Escherichia coli O157:H7* on lettuce, NE-SARE Graduate Student Grant, 2021

SCHOLARSHIPS & AWARDS

ANSC Outstanding Graduate Student (Ph.D.) Award, UConn	2022
Judge's Choice Winner, IAFP Student 3 MT thesis competition	2022
UConn Conference Participation Award	2022
IAFP Student Travel Scholarship Award	2022
Finalist, PSA Student Competition	2022
Certified HACCP Training for Meat and Poultry	2020
Outstanding Graduate Student Award, SCU	2018
Scholarship for Academic Excellence, SCU	2016
Outstanding Undergraduate Student Award, NAU	2016
First-Class Scholarship for Academic Excellence, NAU	2015
Science and Innovation Scholarship, NAU	2015

PROFESSIONAL MEMBERSHIPS

1. 2021 – present: American Society for Microbiology (ASM)
2. 2022 – present: International Association for Food Protection (IAFP)
3. 2022 – present: Poultry Science Association (PSA)
4. 2022 – present: Institute of Food Technologists (IFT)