

## Schedule at a glance

### Morning concurrent sessions

**9:00-10:15** **Oral presentations I** **FIC 277**

- 9:00 Targeted mass spectrometry method for quantification of eggs from processed foods  
Liyun Zhang
- 9:15 Gut microbiome and host factors influence allergic responses in a mouse model of peanut allergy  
Morgan Cade
- 9:30 Psilocybin research review: Psychoactive mechanism and therapy potential  
Anna Hilton
- 9:45 Understanding the effect of Cd acute exposure on the composition and function of human gut microbiotas  
Carmen E. Perez-Donado
- 10:00 Method development, validation, and quantification of aflatoxin B1 in commercial buckwheat using fluorometry and high-performance liquid chromatography  
La Fontaine Bahatsi

**9:45-10:45** **Poster session I (odd numbers)** **4<sup>th</sup> floor**

1. Impacts of *Clostridium perfringens* toxinotypes on adherence to intestinal mucins and epithelial cells  
Thanh Do
3. Quantifying *Lactobacillus johnsonii* abundance in a mouse model of Experimental Autoimmune Myocarditis (EAM)  
Qingyuan Li
5. Development of a harmonized sample preparation method for quantitative allergen detection method of soy, milk, and peanut allergens  
Zhenhao Wang
7. Experimental evaluation of physicochemical characteristic of dried chili and its sorption isotherm: Sri Lankan variety MI-2 (*Capsicum annum* L.)  
L. A. D. S. De Silva
9. Exploring the effect of atmospheric cold plasma on allergenicity: A scoping review  
Zahra Shahbazi
11. Elucidating the changes in proteins and metabolites of different maize varieties due to domestication  
Prabhashis Bose
13. Influence of overcooking in *in vitro* digestion and fermentation of ground beef and whole wheat bread  
Wensheng Ding
15. Development of a mass spectrometry method for multi-target quantification of tree nut allergens in incurred food matrices  
Jerry Kahu
17. Changes in seed composition associated with domestication of maize affect fermentation patterns by the human gut microbiome  
Bo Peng
19. *Enterococcus faecium* can serve as a surrogate for the thermal lethality of *Salmonella* in ground pork products  
Mohan Li

21. Synthesizing cleaning and sanitizing interventions against *Listeria* spp. including *L. monocytogenes* in dairy processing facilities: A systematic review and meta-analysis approach  
Karen Nieto Flores

23. dpCAN: Novel CAZyme families predicted from microbiomes using large protein language models  
N. R. Siva Shanmugam

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**10:30-11:45** **Oral presentations II** **FIC 277**

10:30 The impact of heat moisture treatment on the physicochemical properties of cereal bran and pulse hulls  
Yichen Bai

10:45 Development of a green integrated continuous extraction-reaction process using supercritical carbon dioxide for value-added processing of tomato processing waste  
Yue Wang

11:00 Analysis of digestibility and bioaccessibility of amino acids and peptides in different pea varieties  
Sayantini Paul

11:15 *Bacteroides rodentium* limits tumor progression in a mouse model of melanoma  
Mason S. Mandolfo

11:30 Combining *Lactobacillus taiwanensis* and *Gordonibacter urolithinifaciens* decreases body weight gain and increases lean mass in a mouse model of diet-induced obesity  
David Gomez Quintero

11:45\* Detection of allergen cross-contact in shared frying oil using mass spectrometry techniques  
\*5 minute flash talk  
Francisca Asigiri

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**Noon – 1:00** **Break for Lunch** **Second floor commons**

**Afternoon concurrent sessions**

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**1:00-1:30** **Flash talks** **FIC 277**

1:00 Mass spectrometry for detection and quantification of gluten in fermented foods  
Sara Schlange

1:06 Identifying candidate genes in rice responsible for starch structure and digestibility in response to patterns of heat-stress consistent with climate change  
Liya Mo

1:12 Assessing the ability of *Faecalibacterium duncaniae* to colonize mice harboring a humanized gut microbiota  
Xiaohan Wu

1:18 Exploring polysaccharide utilization loci (PULs) diversity in human gut microbiome: Implications for health and disease  
Yi Xing

1:24 dbAPIS: A database of anti-prokaryotic immune system genes  
Yuchen Yan

**1:45-2:30** **Workshop** **FIC 111**

Use of near-infrared spectroscopy and Unscrambler software to model a unique food product Keith Scott

**2:00-3:15** **Oral presentations III** **FIC 177**

2:00 The gut microbiota modulates the severity of experimental autoimmune myocarditis Xu Shi

2:15 Efficacy of power ultrasound combined with organic acid for the reduction of foodborne pathogens on romaine lettuce Priya Biswas

2:30 The structural basis for DNA uptake by *Acinetobacter* Yafan Yu

2:45 Food safety risks associated with home freeze drying Prashant Dahal

3:00 Elucidating a novel hypertension treatment approach through egg white hydrolysate and gut microbiome synergism Emerson Nolasco

**2:45-3:45** **Poster session II (even numbers)** **4<sup>th</sup> floor**

2. Molecular mechanisms of mucosal colonization by *C. difficile* Baishakhi Biswas

4. Variation in fatty acid profiles of novel wild wheat introgression lines Mary K. Morran

6. Assessing fumonisin risk in corn from Nebraska and insight into the associated *Fusarium* spp. populations Ram Kumar Shrestha

8. Fabrication and characterization of dual function oil-in-water structured emulsions from supercritically-dried curcumin-loaded egg white protein aerogels Farhad Alavi

10. Establishing a next-generation risk assessment protocol for antibiotic resistance genes Jaber Ghorbani

12. Development of fortified blended food using Nebraskan dry edible beans Aemiro Zula

14. Developing an innovative approach to form fish oil-loaded wax particles using supercritical carbon dioxide (SC-CO<sub>2</sub>) Purlen Sezer Okur

16. Utilizing probiotic bacteria to compete with *Clostridioides difficile* for multiple nutrient niches April Johnson

18. Development of dietary fiber blends for targeted gut microbiome modulation in obesity: An update on progress Izuchukwu Iwuamadi

20. Interactions between the gut microbiome and dietary g-glutamyl peptide (g-EV) in reducing high fat diet induced atherosclerosis Sedotun Ogun

22. Proteomics and Metabolomics Facility Application to Food Science Research  
Nebraska Center for Biotechnology

**4:00-4:45**

**Afternoon keynote**

**FIC 277**

Translating science to an impact on human health: The story of a biotech startup  
Steven Frese, Department of Nutrition, University of Nevada-Reno

**Student presentation awards (following keynote speaker)**

**FIC 277**

**Video content will be offered 11:30-1:00 and 2:45-3:45 in room 111 on a loop**

**Videos**

Introduction to subcritical water extraction technology, a novel green extraction method

Blake Looi

Norovirus and how to protect yourself against it

Vanessa Whitmore

Recent advances in the extraction of phenolic compounds from food wastes by emerging technologies

Ilhami Okur

The effect of fat content on the inactivation of *Listeria innocua* in meat emulsions after high pressure processing

Yhuliana Nino Fuerte

**TED Talks**

Shelf life extension of food products

Franklin Sumargo

Unraveling the Hidden Superpower of Fiber in Your Diet

Willow (Sujun) Liu