



**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

# ONE HEALTH

FOOD SYSTEMS CONFERENCE

INTEGRATING VETERINARY, FOOD,  
ANIMAL, AGRICULTURE, AND  
ENGINEERING SCIENCES

## Schedule

# JULY 20-31, 2020

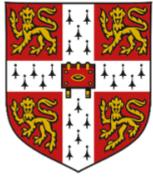


**ONLINE**  
INTERACTIVE & GROUNDBREAKING  
**CONFERENCE**

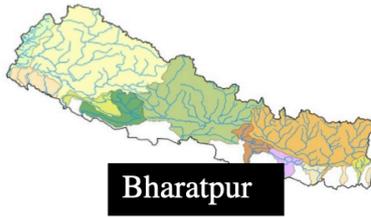
INTEGRATING VETERINARY, FOOD, ANIMAL, AGRICULTURE, AND ENGINEERING SCIENCES



# One Health for Food System Conference : Integrating Veterinary, Food, Animal, Agriculture, and Engineering Sciences



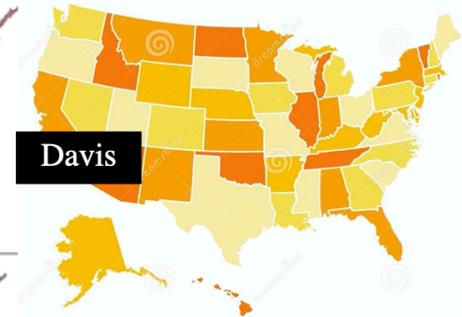
Cambridge



Bharatpur



YAMAGUCHI UNIVERSITY



Davis

Yamaguchi-ken



# Week 1

Davis Time	Sunday 7/19/2020	Monday 7/20/2020	Tuesday 7/21/2020	Wednesday 7/22/2020	Thursday 7/23/2020
5:00-7:00 pm	One Health for Food Safety & Animal Health  Dr. Bennie Osburn Director, Outreach and Training, Western Institute for Food Safety and Security Dean Emeritus, School of Veterinary Medicine, University of California, Davis	5:00-6:00pm  Linking Ecosystem Health to Human and Animal Health: Challenges and Opportunities  Dr. Jorge Rodrigues Professor, Department of Land, Air and Water Resources, University of California, Davis	5:00-6:30pm  Virtual Dairy Visit I Milking Parlor  Dr. Mike Payne Researcher and Outreach Coordinator, Western Institute for Food Safety and Security	5:00-6:00pm  Satisfying the Rising Demand for Animal Protein While Protecting the Environment  Dr. Frank Mitloehner Professor and Air Quality Extension Specialist, Department of Animal Science, University of California, Davis	5:00-6:00pm  One Health Approach to Solving Complex Problems: Spinach Outbreak  Dr. Michele Jay-Russell Interim Director, Western Institute for Food Safety and Security, and Program Manager for the Western Center for Food Safety, University of California, Davis DVM, University of California, Davis
7:15-8:00 pm	6:00-7:00pm  The Power of One  7:00-8:00pm  Ms. Chris Brunner Communications and International Programs Director, Western Institute for Food Safety and Security	6:00-7:00pm  Microbes and Plant Health  Dr. Maeli Melotto Associate Professor and Vice-Chair of Agricultural Plant Biology, Department of Plant Sciences, University of California, Davis	6:30-8:00pm  Virtual Dairy Visit II Environmental Impact: Dairy Digester  Dr. Pramod Pandey Associate Agronomist and Associate Specialist in Cooperative Extension, Department of Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis	6:00-7:00pm  Small Animal Emergency Medicine  Dr. Kate Hopper Professor, Surgical & Radiological Sciences, School of Veterinary Medicine, University of California, Davis	6:00-7:00pm  Involvement of Microbiome Analysis in Food Safety Research  Dr. Luxin Wang Associate Professor, Food Science and Technology, University of California, Davis. Ph.D, University of Missouri
10:00-11:00pm	7:00-8:00pm  Team Discussion Get the group organized	7:00-8:00pm  Poster Review  Ms. Heather Johnson, Instructional Systems Designer, Western Institute for Food Safety and Security	10:00-11:00pm  Team Discussion Raise Awareness	7:00-8:00pm  Group Presentation  Describe the One Health issue that your group picked. Why do you choose this topic? Is there a news reported over your topic?	7:00-8:00pm  School life in UC Davis (Graduate Student)  Dr. June Palmado Barrera, DVM , School of Veterinary Medicine, University of California, Davis
11:00-12:00pm	10:00-12:00pm  Presentations by Graduate Students	10:00-12:00pm  Presentations by Graduate Students	11:00-12:00pm  Cocktail Party	10:00-12:00pm  Presentations by Graduate Students	10:00-11:00pm  School life in UC Davis (Undergraduate Student)  Richard Ma, School of Biological Sciences at UC Davis, Majoring in Cell Biology

# Week 2

Davis Time	Sunday 7/26/2020	Monday 7/27/2020	Tuesday 7/28/2020	Wednesday 7/29/2020	Thursday 7/30/2020
5:00-6:00pm	Overview of Nutrition Service, Veterinary Medical Teaching Hospital	Integrative Medicine Service at the UC Davis	Building Capacity to Prevent Pandemics Using a One Health Approach	How to Communicate Scientific Subjects to the Public	<b>Final Team Presentation</b> 5:30-5:50 Esprit de corps 5:50-6:10 Six buddies 6:10-6:30 Striving Dreamers
	Dr. Andrea Fascetti, Professor, Department of Molecular Biosciences, School of Veterinary Medicine, University, of California, Davis	Dr. Jamie Peyton, Chief of Integrative Medicine Service, UC Davis, Veterinary Medical Teaching Hospital	Dr. Tracey Goldstein, Associate Director, One Health Institute, University of California, Davis	Gregory Wlasiuk, E-Learning Curriculum Designer, Western Institute for Food Safety and Security Ms. Heather Johnson, Instructional Systems Designer, Western Institute for Food Safety and Security	
6:00-7:00pm	Graduate Education at UC Davis and in USA	Feed-based Technologies to Improve Weaned Pig Health and Production	Community Practice, School of Veterinary Medicine	<b>Final Team Presentation</b>	Closing Remarks
	Dr. Xinbin Chen, Professor, Department of Surgical & Radiological Sciences, School of Veterinary Medicine, University of California, Davis	Dr. Yanhong Liu, Assistant Professor of Animal Nutrition, Department of Animal Science, University of California, Davis	Dr. Ilana Halperin, Health Sciences Assistant Professor of Clinical Medicine & Epidemiology, University of California, Davis		
7:00-8:00pm	Panel Discussion - Veterinary Medicine	Swine Behavior & Welfare	Panel Discussion - Food Science & Veterinary Medicine	06:30-08:00pm 06:30-06:50 JIANGSHAN 06:50-07:10 The Waves 07:20-07:40 Eureka 07:40-08:00 Rainbow Bridge	Dr. Bennie Osburn Director, Outreach and Training, Western Institute for Food Safety and Security Dean Emeritus, School of Veterinary Medicine, University of California, Davis
	Taotao Lu, BVSc , School of Veterinary Medicine, University of California, Davis Yitong Huang, BVSc , School of Veterinary Medicine, University of California, Davis	Dr. Kristina Horback, Assistant Professor, Department of Animal Science, University of California, Davis	Dr. Jinxin Liu, School of Food Science, University of California, Davis Dr. Wenqiang Sun, School of Veterinary Medicine, University of California, Davis	8:00-8:30pm	CONFERENCE CONCLUDED
10:00-11:00pm	Panel Discussion Cambridge University / Agricultural University / Yamaguchi University / Zhejiang A&F University / Agriculture and Forestry University (Nepal)	Presentations by Graduate Students	Mock Presentation		
11:00-12:00pm	Team Discussion Get prepared for the final presentation			10:00-12:00pm	

## Presentations by Graduate Students

07/20/2020



Talk

### Presentation by Graduate Students

July 21, 2020, 01:00 PM - 01:30 PM CST(+08:00)

[Changxuan Shao](#)

【1:00-1:15】

Speaker:

Changxuan Shao, a 3rd grade PhD student from Northeast Agricultural University.

Introduction of his research:

A progressive design scheme and screening system was established for  $\beta$ -hairpin antimicrobial peptides to provide a simplified, inexpensive, efficient, and safe prototype of  $\beta$ -sheet antibiotic substitutes. Target amphiphiles WKF-PG and WRF-NG can tackle bacterial infection through direct antimicrobial efficacy and potential inflammation-limiting capabilities without observed toxicity after systemic administration.



Talk

### Presentation by Graduate Students

July 21, 2020, 01:30 PM - 02:00 PM CST(+08:00)

[Min Liu](#)

【1:30-1:45】

Speaker:

Min Liu, a postdoctoral student from Shandong Agricultural University.

Introduction of her research:

The purpose of this work is to assess the potential effects of mycelia polysaccharide from *Schizophyllum commune* Fr. on the glucolipid metabolism via modulation of gut microbiota in obesity mice, and to elucidate their possible regulatory mechanisms. This is supported by China Postdoctoral Science Foundation and Shandong Postdoctoral Innovation Project.



Talk

### Presentation by Graduate Students

July 21, 2020, 02:30 PM - 03:00 PM CST(+08:00)

[Xusheng Dong](#)

【2:45-3:00】

Speaker:

Xusheng Dong, a First year PHD student.

Introduction of his research:

The main focus of our lab is amino acid metabolism in dairy cows. We wanted to increase the nitrogen utilization of heifers and dairy cows by rumen-protected amino acids supplementation. My PhD project focused on dairy mammary gland development and mammary stem cells in dairy cows. I am currently working on mammary stem cell research using mice as a model.

## Presentations by Graduate Students

07/22/2020



Talk

**Presentation by graduate student**

July 23, 2020, 01:00 PM - 01:30 PM CST(+08:00)

Xuedi Huang

【1:00~1:15】

Speaker:

Xuedi Huang, a 3rd year Ph.D. from Zhejiang University.

Introduction of her research:

IBD(inflammatory bowel disease) is a kind of chronic disease that can be treated with probiotic. I've isolated tens of bacteria from food samples. Lactic acid bacteria strain XY-1&XY-2 stand out for their safety and positive effect on reducing inflammatory level of zebrafish IBD model.



Talk

**Presentation by graduate student**

July 23, 2020, 01:30 PM - 02:00 PM CST(+08:00)

Qiao He

【1:30~1:45】

Speaker:

Qiao He, a 1st year Ph.D. from Zhejiang University.

Introduction of her research:

The research provides a more complete understanding of the synergistic effect of thyme essential oil nanoemulsion, which was formulated by probe sonication and ultrasound and its feasibility for minimal processing industry to improve fresh produce safety.



Talk

**Presentation by graduate student**

July 23, 2020, 02:00 PM - 02:30 PM CST(+08:00)

Tian Guan

【2:00~2:30】

Speaker:

Tian Guan, a 1st year Ph.D. from South China Agricultural University.

Introduction of her research:

Study on Android smartphone-based immunosensors for the on-site detection of Microcystin-LR in water by integrating the detection platform smartphone with portable electrochemical immunosensor or miniaturized microfluidic chip-based immunosensors.

07/27/2020



Talk

**Presentation by graduate student**

July 28, 2020, 01:00 PM - 01:30 PM CST(+08:00)

Haocheng Guo

【1:00~1:15】

Speaker:

Haocheng Guo, a 1st year postgraduate from Zhejiang University.

Introduction of his research:

My current research direction is to use microfluidic process by utilizing its laminar flow characteristics to prepare a functional drug delivery system. Using food-grade materials to prepare a targeted release delivery system with better dispersion for intestinal environment.



Talk

**Presentation by graduate student**

July 28, 2020, 01:00 PM - 01:30 PM CST(+08:00)

Xiuxiu Miao

【1:15~1:30】

Speaker:

Xiuxiu Miao, a 3rd year postgraduate from Shandong Agriculture University.

Introduction of her research:

Salmonella Enteritidis can colonize in the intestines after infecting chickens, and transferred into people through eggs, eventually causing intestinal inflammation. My research is analysis of mRNA and miRNA sequencing in the cecum of Shouguang chickens infected with Salmonella Enteritidis. Explore the molecular regulation mechanism of mRNA and miRNA after SE infection.



Talk

**Presentation by graduate student**

July 28, 2020, 01:30 PM - 02:30 PM CST(+08:00)

Tianyi Yan

【1:30~1:45】

Speaker:

Tianyi Yan, a first-year Ph.D. from Zhejiang University.

Introduction of his research:

In this study, effects of applying a high-intensity ultrasonic field to the electrostatic interactions between soy protein isolate and citrus pectin were explored, with an emphasis on the enhancement of emulsifying properties. To better understand the mechanism for the improved properties, changes on physicochemical and microstructural properties were further investigated.



Talk

**Presentation by graduate student**

July 28, 2020, 01:30 PM - 02:00 PM CST(+08:00)

VICTORIA ANTHONY

【1:45~2:00】

Speaker:

Victoria Anthony, a 2nd year Ph.D. from Shandong Agriculture University.

Introduction of her research:

With growing concerns on global warming, heat stress is a paramount threat to humans and livestock in most tropical regions. Nitric oxide is a biological signalling molecule involved in thermoregulation, and Citrulline is essential for its synthesis. This research is investigating the potentials of citrulline in mediating stress responses and nitric oxide production using chickens



Talk

**Presentation by graduate student**

July 28, 2020, 02:00 PM - 02:30 PM CST(+08:00)

Mario Huang

【2:00~2:15】

Kaiyin Huang, a graduated student from Nanjing Agricultural University.

Introduction of his research:

In Kaiyin Huang's undergraduate program, he mainly focused on a natural ascorbic acid derivative, 2-O-β-D-Glucopyranosyl-L-ascorbic acid (AA-2βG), from Lycium barbarum L.. The purification method of AA-2βG was improved. Through the bioactivities research experiments, it was found that AA-2βG has gut microbiota modulatory and anti-inflammatory effect. Moreover, it is found that AA-2βG reversed mouse immunosuppression caused by Cy, and significantly alternated the structure of microbiota in mice colon and small intestine.



Panel

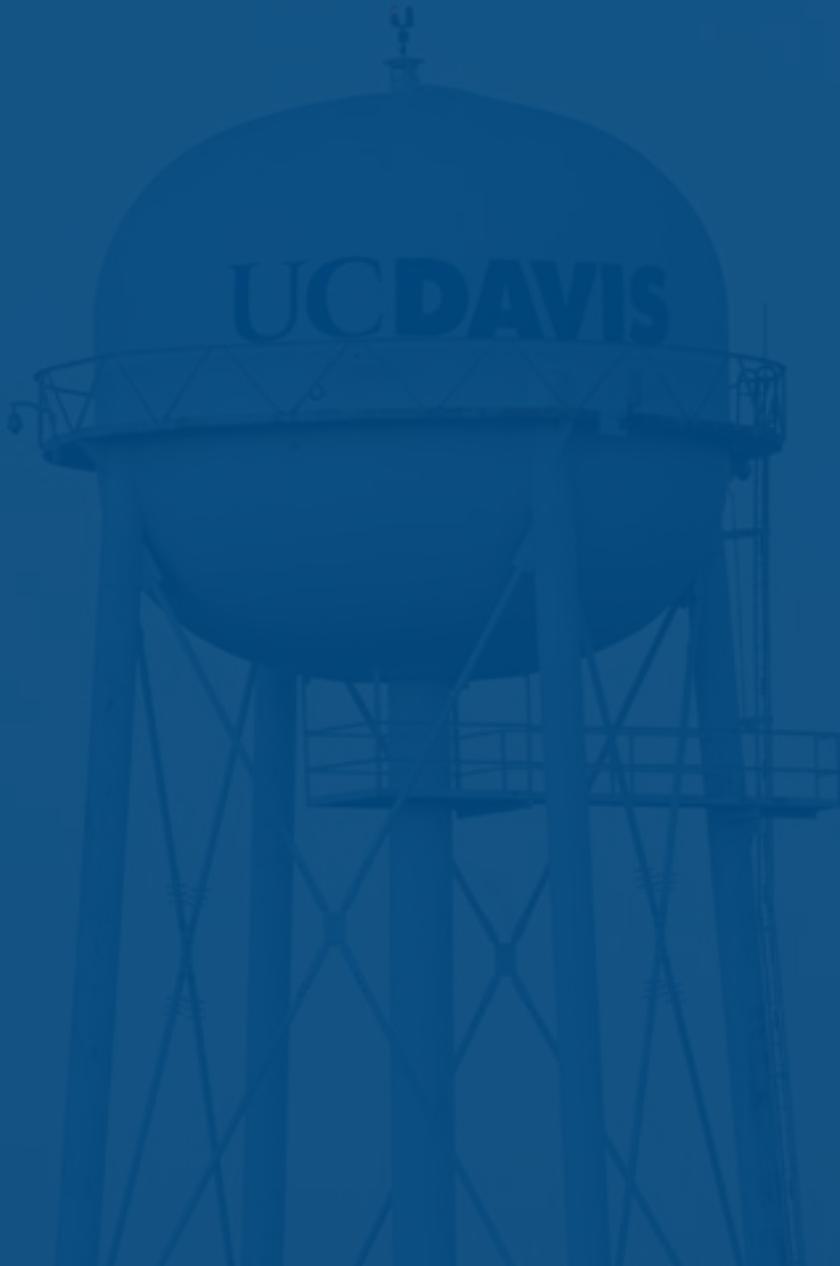
**Panel Discussion**



July 27, 2020, 01:00 PM - 02:30 PM CST(+08:00)

TAKAHASHI Yoshimi, Sammie Lam, Krishna Adhikari, Xiaotong Jiang, Chiyu Guan,  
Anna Liu

1. A brief introduction of the Veterinary program of my School.
2. Why do I learn Veterinary Medicine?
3. The connection of One Health and the Veterinary program of my School.



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