



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



CONFERENCE SCHEDULE



Week 1					
China	Monday 7/20/2020	Tuesday 7/21/2020	Wednesday 7/22/2020	Thursday 7/23/2020	Friday 7/24/2020
	<p>Conference Welcome and Overview of One Health for Food Safety & Animal Health</p>	<p>Linking Ecosystem Health to Human and Animal Health: Challenges and Opportunities</p>	<p>Virtual Dairy Visit I Milking Parlor with Heather Johnson and Dr. Jim Cullor, Professor Emeritus, UC Davis</p>	<p>Satisfying the Rising Demand for Animal Protein While Protecting the Environment</p>	<p>One Health Approach to Solving Complex Problems: Spinach Outbreak</p>
8:00-10:00	<p>Dr. Bennie Osburn Director, Outreach and Training, Western Institute for Food Safety and Security Dean Emeritus, School of Veterinary Medicine, University of California, Davis</p>	<p>Dr. Jorge Rodrigues Professor, Department of Land, Air and Water Resources, University of California, Davis</p>	<p>Dr. Mike Payne Researcher and Outreach Coordinator, Western Institute for Food Safety and Security</p>	<p>Dr. Frank Mitloehner Professor and Air Quality Extension Specialist, Department of Animal Science, University of California, Davis</p>	<p>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</p>
	<p>The Power of One Think Big – Start Small Plant Seeds – Grow Mighty Trees</p>	<p>Microbes and Plant Health</p>	<p>Virtual Dairy Visit II Environmental Impact: Dairy Digester with Heather Johnson and Dr. Jim Cullor, Professor Emeritus, UC Davis</p>	<p>Small Animal Emergency Medicine</p>	<p>Involvement of Microbiome Analysis in Food Safety Research</p>
10:00-11:00	<p>Ms. Chris Brunner Communications and International Programs Director, Western Institute for Food Safety and Security</p>	<p>Dr. Maeli Melotto Associate Professor and Vice-Chair of Agricultural Plant Biology, Department of Plant Sciences, University of California, Davis</p>	<p>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</p>	<p>Dr. Kate Hopper Professor, Surgical & Radiological Sciences, School of Veterinary Medicine, University of California, Davis</p>	<p>Dr. Luxin Wang Associate Professor, Food Science and Technology, University of California, Davis. Ph.D., University of Missouri</p>
	<p>Team Discussion Get the group organized</p>	<p>Poster Review</p>	<p>Team Discussion Raise Awareness</p>	<p>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?</p>	<p>School life in UC Davis (Graduate Student)</p>
1:00-3:00	<p>Presentations by Graduate Students</p>	<p>Presentations by Graduate Students</p>	<p>Cocktail Party</p>	<p>Presentations by Graduate Students</p>	<p>School life in UC Davis (Undergraduate Student)</p>
					<p>Dr. June Palmado Barrera, DVM, School of Veterinary Medicine, University of California, Davis</p>
					<p>Richard Ma, School of Biological Sciences at UC Davis, Majoring in Cell Biology</p>

CONFERENCE SCHEDULE



Week 2					
China	Monday	Tuesday	Wednesday	Thursday	Friday
	7/27/2020	7/28/2020	7/29/2020	7/30/2020	7/31/2020
8:00-9:00	<p>Overview of Nutrition Service, Veterinary Medical Teaching Hospital</p> <p>Dr. Andrea Fascetti Professor, Department of Molecular Biosciences, School of Veterinary Medicine, University of California, Davis</p>	<p>Integrative Medicine Service at the UC Davis</p> <p>Dr. Jamie Peyton, Chief of Integrative Medicine Service, UC Davis, Veterinary Medical Teaching Hospital</p>	<p>Building Capacity to Prevent Pandemics Using a One Health Approach</p> <p>Dr. Tracey Goldstein Associate Director, One Health Institute, University of California, Davis</p>	<p>How to Communicate Scientific Subjects to the Public</p> <p>Gregory Wlasiuk E-Learning Curriculum Designer, Western Institute for Food Safety and Security</p>	<p>Final Team Presentation</p> <p>8:30-8:50 Esprit de Corps 8:50-9:10 Six Buddies 9:10-9:30 Striving Dreamers</p>
9:00-10:00	<p>Graduate Education at UC Davis and in USA</p> <p>Dr. Xinbin Chen, Professor, Department of Surgical & Radiological Sciences, School of Veterinary Medicine, University of California, Davis</p>	<p>Feed-based Technologies to Improve Weaned Pig Health and Production</p> <p>Dr. Yanhong Liu, Assistant Professor of Animal Nutrition, Department of Animal Science, University of California, Davis</p>	<p>Community Practice, School of Veterinary Medicine</p> <p>Dr. Ilana Halperin Health Sciences Assistant Professor of Clinical Medicine & Epidemiology, University of California, Davis</p>	<p>Ms. Heather Johnson Instructional Systems Designer, Western Institute for Food Safety and Security</p>	
10:00-11:00	<p>Panel Discussion - Veterinary Medicine</p> <p>Taotao Lu, BVSc, School of Veterinary Medicine, University of California, Davis Yitong Huang, BVSc, School of Veterinary Medicine, University of California, Davis</p>	<p>Swine Behavior & Welfare</p> <p>Dr. Kristina Horback, Assistant Professor, Department of Animal Science, University of California, Davis</p>	<p>Panel Discussion - Food Science & Veterinary Medicine</p> <p>Dr. Jinxin Liu, School of Food Science, University of California, Davis Dr. Wenqiang Sun, School of Veterinary Medicine, University of California, Davis</p>	<p>Final Team Presentation</p> <p>09:30-09:50 JIANGSHAN 09:50-10:10 The Waves 10:20-10:40 Eureka 10:40-11:00 Rainbow Bridge</p>	<p>9:30-10:00 Dr. Bennie Osburn Director, Outreach and Training, Western Institute for Food Safety and Security Dean Emeritus, School of Veterinary Medicine, University of California, Davis</p>
1:00-2:00	<p>Panel Discussion Cambridge University CAU Yamaguchi University Zhejiang A&F University Agriculture and Forestry University (Nepal)</p>	<p>Presentations by Graduate Students</p>	<p>Mock Presentation</p>		
2:00-3:00	<p>Team Discussion Get prepared for the final presentation</p>				<p>10:00-10:30 CONFERENCE CONCLUDED</p>

CONFERENCE SPEAKERS



DR. BENNIE OSBURN

Director, Outreach and Training, Western Institute for Food Safety and Security
 Dean Emertius, School of Veterinary Medicine, University of California, Davis
 DVM, Kansas State University
 Ph.D. in Comparative Pathology, University of California, Davis
 Post-Doctoral Fellowship, Johns Hopkins Medical School

Research Focus: Infectious diseases of livestock, zoonotic diseases, including foodborne pathogens, and the ecology of infectious agents.



CHRIS BRUNNER

Communications and International Programs Director, Western Institute for Food Safety and Security

Area of Focus: Written and social media communications for the institute; management of One Health conferences, symposiums, and workshops; public relations coordinator for international program activities and liaison to international student.



PROF. JORGE RODRIGUES

Professor, Department of Land, Air and Water Resources, University of California, Davis
 M.Sc. in Microbiology, University of São Paulo, Brazil
 Ph.D. in Crop and Soil Sciences and Environmental Toxicology, (Minor) Microbial Ecology (Dual Degree) - Michigan State University

Research Focus: Nature and ecology of microbial processes of importance in nature and of value to mankind; span from biological regulation of biogeochemical cycles and natural and agricultural ecosystems to microbial diversity and functionality in termite hindguts.



PROF. MAELI MELOTTO

Associate Professor and Vice-Chair of Agricultural Plant Biology,
 Department of Plant Sciences, University of California, Davis

Research Focus: Plant-pathogen interactions, understanding the close interaction between plants and human pathogens at the molecular level.

CONFERENCE SPEAKERS



DR. MICHAEL PAYNE

Researcher and Outreach Coordinator, Western Institute for Food Safety and Security DVM, University of Georgia
Ph.D. in Comparative Pathology, University of California, Davis

Research Focus: Director of the California Dairy Quality Assurance Program, an industry, academic regulatory partnership which promotes the health and welfare of livestock, consumers and the environment through outreach, education and research.



PROF. PRAMOD PANDEY

Associate Agronomist and Associate Specialist in Cooperative Extension, Department of Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis; and Assistant Cooperative Extension Specialist, Food Science and Technology
M.S., Washington State University, Pullman, and M. Tech. at Indian Institute of Technology, Kharagpur
Ph.D. from Iowa State University, Ames

Research Focus: Pathogenic bacteria transport at watershed-scale, in-stream and overland bacteria transport, watershed modeling, anaerobic digestion, renewable energy, water resources management, and rainwater harvesting.



PROF. FRANK MITLOEHNER

Professor and Air Quality Extension Specialist, Department of Animal Science, University of California, Davis
M.S., Agricultural Engineering and Animal Science, University of Leipzig, Germany
Grad studies, Animal Science, University of Goettingen, Germany
Ph.D., Animal Science, Texas Tech University, Lubbock, TX

Research Focus: Air quality (dust emission and microbial sampling in feedlot cattle and pigs), environmental physiology (heat stress in cattle and pigs), and ethology.



PROF. KATE HOPPER

Professor, Surgical & Radiological Sciences, School of Veterinary Medicine, University of California, Davis
BVSc, University of Melbourne, Australia
MVS, University of Melbourne, Australia
Ph.D., University of California, Davis

Research Focus: Occurrence and the underlying mechanisms of clinical acid-base, electrolyte and lactate disorders in animals.

CONFERENCE SPEAKERS



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
Ph.D. in Comparative Pathology, University of California, Davis

Research Focus: Food safety, public health, molecular epidemiology of environmental enteric pathogens from domestic and wildlife species affecting people.



PROF. LUXIN WANG

Associate Professor, Food Science and Technology, University of California, Davis
Ph.D. University of Missouri

Research Focus: Microbial safety of fresh produce, aquaculture products and animal products. Her program uses conventional microbiological technologies and new precision approaches, such as comparative genomics and metagenomics, to study the behavior of foodborne pathogens and their interactions with the background microbiome.



PROF. ANDREA FASCETTI

Professor, Department of Molecular Biosciences, School of Veterinary Medicine, University of California, Davis
VMD, University of Pennsylvania, Philadelphia, PA
PhD, University of California, Davis

Research Focus: Nutrition and metabolism in companion animal; nutritional idiosyncrasies of the cat; mechanisms of obesity; amino acid, nutrient requirements in cats and dogs; improvement of pet foods; veterinary clinical nutrition-the use of nutrition in the management and prevention of disease.

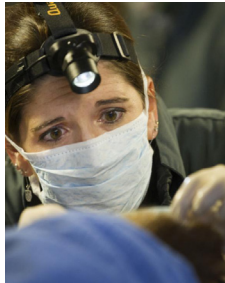


PROF. XINBIN CHEN

Professor, Department of Surgical & Radiological Sciences, School of Veterinary Medicine; Co-Leader Comparative Oncology, Comprehensive Cancer Center, University of California, Davis
BS (DVM), Anhui Agricultural University, China
MS, Nanjing Agricultural University, China
MS, Michigan State University, Michigan
PhD, Michigan State University, Michigan

Research Focus: Oncology; Director of DVM/PhD scholarship program

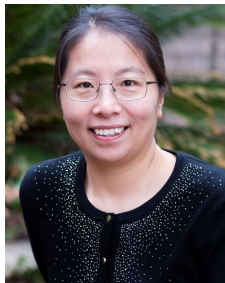
CONFERENCE SPEAKERS



PROF. JAMIE PEYTON

Chief of Integrative Medicine Service, UC Davis, Veterinary Medical Teaching Hospital
DVM, DACVECC, CVA Chief of Service

Research Focus: Acupuncture and other methods of pain management, palliative care, and physical rehabilitation (which can include rehabilitation following surgery, paralysis rehabilitation, weight loss, and canine athlete injury rehabilitation).



PROF. YANHONG LIU

Assistant Professor of Animal Nutrition, Department of Animal Science, University of California, Davis
B.S., China Agricultural University,
M.S. in Animal Nutrition, China Agricultural University
Ph.D. in Animal Science, University of Illinois, Urbana-Champaign

Research Focus: Increasing public concerns about antimicrobial resistance of food-borne bacteria impose urgent needs to seek alternatives to antibiotics in agricultural animal industry.



PROF. KRISTINA HORBACK

Assistant Professor, Department of Animal Science, University of California, Davis
M.A. in Experimental Psychology, University of Southern Mississippi, 2011
Ph.D. in Experimental Psychology, University of Southern Mississippi, 2012

Research Focus: Identification of personality traits among domestic farm animals and evaluation of relationship between personality and the assessment of an animal's physical and psychological welfare.



PROF. TRACEY GOLDSTEIN

Associate Director, One Health Institute, University of California, Davis
Director, One Health Institute Laboratory, UC Davis
Lab Director, PREDICT Project
Ph.D. in Comparative Pathology, University of California, Davis

Research Focus: Diseases in marine mammal and other wildlife populations.

CONFERENCE SPEAKERS



JAMES CULLOR

Professor Emeritus, Department of Population, Health and Reproduction, School of Veterinary Medicine
DVM, Kansas State University
Ph.D. in Comparative Pathology, University of California

Research Focus: Works extensively throughout China talking to dairymen about how to maintain animal, public, and ecosystem health, and food safety. His research focus is mastitis, neonatal diseases, vaccines, novel antimicrobial compound development and testing, and studying novel methods for controlling pathogens in milk.



PROF. ILANA HALPERIN

Health Sciences Assistant Professor of Clinical Medicine & Epidemiology, University of California, Davis
DVM, University of California, Davis, California
CVA, International Veterinary Acupuncture Society

Research Focus: Primary care and preventive veterinary medicine



GREGORY WLASIUK

E-Learning Curriculum Designer, Western Institute for Food Safety and Security
MS in English, University of California, Davis

Area of Focus: Designing online educational content for Western Institute for Food Safety and Security educational programs, development of interactive online courses and instructive videos.



HEATHER JOHNSON

Instructional Systems Designer, Western Institute for Food Safety and Security
MS in Microbiology, University of California, Davis

Areas of Focus: Oversees the instructional design component of WIFSS training and educational projects in accordance with certification standards that meet local, state and federal agency requirements. She designs blended - learning educational materials specifically using principles of adult education.

Presentation by Graduate Student (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 β -hairpin antimicrobial peptides to provide a simplified, inexpensive, efficient, and safe prototype of β -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.

Presentation by Graduate Student (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.

Presentation by Graduate Student (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-Glucoopyranosyl-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 Discussion (07/26/2020)



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.

CONFERENCE SCHEDULE



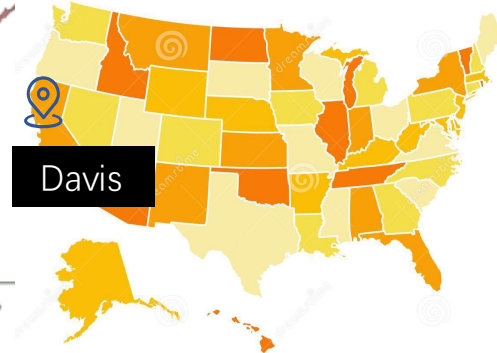
Cambridge



Bharatpur



Yamaguchi-ken



Davis





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