

**UCDAVIS**  
UNIVERSITY OF CALIFORNIA

# ONE HEALTH

**ZOONOTIC DISEASES IMPACT ON FOOD SYSTEMS**

**CONFERENCE SCHEDULE**

**JULY 26 – AUGUST 6, 2021**

 **NLINE**  
INTERACTIVE & GROUNDBREAKING  
**CONFERENCE**

**UC DAVIS EDUCATION CONFERENCE ON ONE HEALTH FOR FOOD SAFETY, AGRICULTURE, AND ANIMAL HEALTH**

HOSTED BY: UNIVERSITY OF CALIFORNIA, DAVIS | WESTERN INSTITUTE FOR FOOD SAFETY & SECURITY

CO-HOSTED BY: CHINA AGRICULTURAL UNIVERSITY | COLLEGE OF VETERINARY MEDICINE



## CONFERENCE DESCRIPTION

The 2021 UC Davis Education Conference on One Health for Food Safety, Agriculture, and Animal Health being held online, July 26 – August 6, 2021, provides an in-depth educational experience for participants to learn about the importance of applying a One Health approach to solving problems concerning food safety and security, and animal health. The 2021 summer online conference is co-hosted by the College of Veterinary Medicine, China Agricultural University. One Health takes an interdisciplinary approach to solving specific, complex problems that arise at the interface of animals, humans, and the environment. Collaboration among professionals with diverse specializations is a necessary condition of One Health problem solving. The comprehensive program includes lectures, virtual field trips, and team-building exercises which increase the participants awareness of taking a multidisciplinary approach to solving complex problems concerning the health of people, animals, and the environment. This One Health approach to solving problems is critical in promoting progress towards safer, better quality food systems and healthy animals on our planet. UC Davis WIFSS One Health conferences provide an in-depth educational experience for undergraduate and graduate students around the globe to learn about the importance of applying a One Health approach to solving specific, complex problems that arise at the interface of people, animals, and the environment. At this 2-week online conference participants will interface with respected professors from UC Davis School of Veterinary Medicine, College of Agricultural and Environmental Sciences, and from China Agricultural University and other universities around the world. In addition to lectures, participants will take part in team building exercises led by experienced subject matter experts and UC Davis students. Students from agricultural and veterinary colleges throughout the world will have the chance to work together on team-building activities and build friendships through problem-based learning projects.



## WEEK 1

MONDAY, JULY 26

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Welcome and Overview of One Health	Dr. Bennie Osburn Director, Outreach and Training, UC Davis Western Institute for Food Safety and Security, and Dean Emeritus, School of Veterinary Medicine, University of California, Davis
9:00 – 9:10 a.m.	All	Opening Remarks China Agricultural University	Dr. Jianzhong Shen Academician of Chinese Academy of Engineering Dean, College of Veterinary Medicine, China Agricultural University
9:10 – 10:00 a.m.	All	Welcome and One Health Research and Education at China Agricultural University	Dr. Jun Han Associate Dean for Research and International Communications and Professor of Virology, Department of Preventive Veterinary Medicine, China Agricultural University College of Veterinary Medicine
10:00 – 10:55 a.m.	All	Power of One and Overview of Conference Schedule	Ms. Chris Brunner Communications and International Programs Director, UC Davis Western Institute for Food Safety and Security
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
1:00 – 2:00 p.m.	All	Discussion One – Getting to know each other and Team building	
2:00 – 2:40 p.m.	All	Toxoplasma Gondii Molecular Epidemiology, Population Genetics and Virulence	Dr. Chunlei Su Associate Professor, Department of Microbiology, The University of Tennessee
2:50 – 3:30 p.m.	All	The Complex Interplay Between TMUV Multiple Nonstructural Proteins and STING Impairing Duck IFN- $\beta$ Induction	Dr. Shun Chen Deputy Dean, Department of Preventive Veterinary Medicine, Sichuan Agriculture University
3:40 – 4:20 p.m.	All	Avian Influenza H9N2 and H7N9 Evolution, Fitness in Poultry and Zoonotic Potential	Dr. Munir Iqbal Professor, The Pirbright Institute, Woking, UK
Start from 4:30 p.m.	Graduate students	Graduate Report	

## WEEK 1

## TUESDAY, JULY 27

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Soil Health: Linking Ecosystem Health to Human and Animal Health: The Challenges and Opportunities	Dr. Jorge Rodrigues Professor, Department of Land, Air and Water Resources, University of California, Davis
9:00 – 9:55 a.m.	All	Study of Infection and Contamination of Plants (Model and Crop) with Plant and Human Pathogens	Dr. Maeli Melotto Professor and Vice-Chair of Agricultural Plant Biology, Department of Plant Sciences, University of California, Davis
10:00 – 10:55 a.m.	All	Involvement of Microbiome Analysis in Food Safety Research	Dr. Luxin Wang Associate Professor, Food Science and Technology, University of California, Davis
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
2:00 – 2:40 p.m.	All	Interplay Between the Foodborne Pathogen <i>Listeria Monocytogenes</i> and Host Kinase Pathway.	Dr. Changyong Cheng Associate Professor, Department of Veterinary Medicine, Zhejiang A&F University
2:50 – 3:30 p.m.	All	Ubiquitination Lessons Learned from <i>Legionella pneumophila</i>	Dr. Jiazhang Qiu Professor, College of Veterinary Medicine, Jilin University, China
3:40 – 4:20 p.m.	All	SARS-CoV-2 and Animal Coronaviruses: Testing and Genetic Characterization	Dr. Leyi Wang Assistant Professor, Department of Veterinary Medicine, University of Illinois
4:30 – 5:10 p.m.	All	Campylobacter: A Major One Health Challenge	Dr. Qijing Zhang Associate Dean, College of Veterinary Medicine, Iowa State University
Start from 5:20 p.m.	Graduate students	Graduate Report	



## WEEK 1

WEDNESDAY, JULY 28

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Combating AMR: The Role of Veterinary and Animal Scientists	Dr. M.D. Salman Professor of Preventive Veterinary Medicine and Infectious Animal Diseases, Animal Population Health Institute, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
9:00 – 9:55 a.m.	All	ASF Prevention and Control Practices in Asia and Pacific Countries	Dr. Zhen Yang Associate Professor, College of Veterinary Medicine, Nanjing Agricultural University
10:00 – 10:55 a.m.	All	Public Health Leadership in Coordinating a One Health Approach to Preventing and Preparing for Pandemics Stemming from Novel, Emerging Zoonotic Diseases	Dr. Marguerite Pappaionou Affiliate Professor and Associate Director, Center for One Health Research, Department of Environmental and Occupational Health Sciences, School of Public Health, University of Washington
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
1:00 – 2:00 p.m.	All	Discussion 2-Choosing group project	
2:00 – 2:40 p.m.	All	Antibacterial Target Identification and Antibiotic Discovery to Combat Multi-drug Resistant Bacterial Pathogens.	Dr. Kui Zhu Professor, College of Veterinary Medicine, China Agricultural University
2:50 – 3:30 p.m.	All	RNA Modifications in Viruses: From Basic Science to Translational Research	Dr. Jianrong Li Professor, Department of Veterinary Medicine, Ohio State University
3:40 – 4:20 p.m.	All	Designing “One Health” AMR Studies to Show Cause and Effect - Where are the Limitations?	Dr. Timothy R Walsh Professor, Department of Zoology, University of Oxford
Start from 4:30 p.m.	Graduate students	Graduate Report	

## WEEK 1

THURSDAY, JULY 29

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Emerging and Re-emerging Diseases in Cultured Tilapia	Dr. Esteban Soto Martinez Professor, Medicine and Epidemiology, School of Veterinary Medicine, University of California, Davis
9:00 – 9:55 a.m.	All	Management and Public Health Significance of Anasakis and other Wildlife Parasites	Dr. Joe Gaydos Senior Wildlife Veterinarian / Science Director, SeaDoc Society, Karen C. Drayer Wildlife Health Center, School of Veterinary Medicine, University of California, Davis
10:00 – 10:55 a.m.	All	HIV as an Emerging Zoonotic Disease	Dr. Van Rompay Infectious Diseases Unit, Core Scientist, Primate Assay Core Lead, California National Primate Research Center, University of California, Davis
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
2:00 – 2:40 p.m.	All	Application of Veterinary Epidemiology and One Health in China	Dr. Chang Cai Research Partnerships Coordinator, Murdoch University
2:50 – 3:30 p.m.	All	Transboundary Viral Diseases	Dr. Shimoda Hiroshi Associate Professor of Veterinary Microbiology, Joint Faculty of Veterinary Medicine, Yamaguchi University
3:40 – 4:20 p.m.	All	Proteomics Meets Bacterial Pathogenesis	Dr. Xiaoyun Liu Associate Professor, School of Basic Medical Sciences, Peking University, China
4:30 – 5:10 p.m.	All	Transfer of (multi) Resistant Bacteria Between Pet Animals and Their Owners	Dr. Stefan Schwarz Professor, Director of the Institute of Microbiology and Epizootics, Department of Veterinary Medicine, Freie Universität Berlin
Start from 5:20 p.m.	Graduate students	Graduate Report	



# CONFERENCE SCHEDULE

ONE HEALTH  
EDUCATION  
CONFERENCE

WEEK 1

FRIDAY, JULY 30

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	SARSCoV2 Outbreaks in the Mink Farms in the Netherlands	Dr. Wim Van Der Poel Professor of Emerging and Zoonotic Viruses, Wageningen Bioveterinary Research, Wageningen University, The Netherlands
9:00 – 9:55 a.m.	All	Zoonotic foodborne viruses	Dr. Erin DiCaprio Department of Food Science and Technology, Assistant Specialist in Cooperative Extension in Community Food Safety, College of Agricultural and Environmental Sciences, University of California, Davis
10:00 – 10:55 a.m.	All	Collaborative Discussion about Your Graduate Research and its Connection to One Health	Dr. Bennie Osburn Director, Outreach and Training, UC Davis Western Institute for Food Safety and Security, and Dean Emeritus, School of Veterinary Medicine, University of California, Davis
10:00 – 10:55 a.m.	Undergraduate Students	Connecting the Dots Between Lecture Topics and One Health	Mr. Andy Lu, Ph.D. Candidate, UC Davis, and Ms. Chris Brunner, UC Davis Western Institute for Food Safety and Security
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
2:00 – 2:40 p.m.	All	Graduate Report	
2:50 – 3:30 p.m.	All	Rabies Epidemic and Control in China	Dr. Ling Zhao Professor, Head of Public Health Department, College of Veterinary Medicine, Huazhong Agricultural University
3:40 – 4:20 p.m.	All	Prevalence, Antimicrobial Resistance Phenotypes and Antimicrobial Resistance Genes of Salmonella Isolates from Pig Slaughtering	Dr. Liying Chen Professor, Department of Preventative Veterinary Medicine, Henan Agricultural University
4:30 – 5:10 p.m.	All	The Conventional Pig as Surrogate Animal Model for Cross-Health Mycotoxin Research	Dr. Siska Croubels Professor, Department of Pharmacology, Toxicology and Biochemistry, Faculty of Veterinary Medicine, Ghent University, Belgium
Start from 5:20 p.m.	Graduate students	Graduate Report	

## WEEK 2

## MONDAY, AUGUST 2

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Cryptosporidiosis as an Example of Zoonotic Disease	Dr. Rob Atwill Professor, Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis
9:00 – 9:55 a.m.	All	West Nile Virus as a Model for One Health	Dr. Christopher Barker Associate Professor, Pathology, Microbiology, & Immunology, School of Veterinary Medicine, University of California, Davis
10:00 – 10:55 a.m.	All	One Health Approach for Exploring the Emergence and Spread of Resistances Against Last-resort Antibiotics	Dr. Yang Wang Professor and Vice Head of Section of Antimicrobial Resistance in Bacteria of Animal, Human and Environment Origin, College of Veterinary Medicine, China Agricultural University
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
1:00 – 2:00 p.m.	All	New Processing Technologies on Improved Sustainability	Dr. Zhongli Pan Professor, Department of Biological and Agricultural Engineering, University of California, Davis
2:00 – 2:40 p.m.	All	Development of Rapid Detection Technology for Food Safety and Quality Control	Dr. Yunfei Xie Deputy Dean, College of Food Science and Technology, Jiangnan University
2:50 – 3:30 p.m.	All	Preparation and Structural Characterization of a Series of Pectic Polysaccharides from Apple Pomace by Subcritical Water	Dr. Xin Wang Professor, College of Food Science and Engineering, Northwest A&F University
3:40 – 4:20 p.m.	All	Functionality and Application of Bovine Whey Proteins	Dr. Cuina Wang Associate professor, College of Food Science and Engineering, Jilin University
Start from 4:30 p.m.	Graduate students	Graduate Report	



## WEEK 2

TUESDAY, AUGUST 3

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Salmonella as a One Health Zoonotic Pathogen	Dr. Maurice Pitesky Associate Specialist in Cooperative Extension, Population Health & Reproduction, School of Veterinary Medicine, University of California, Davis
9:00 – 9:55 a.m.	All	Overview of Public Health Related to Foodborne Diseases	Dr. Michele Jay-Russell Program Manager for the Western Center for Food Safety, University of California, Davis
10:00 – 10:55 a.m.	All	Prevalence, Characterization, and Prevention of Swine Influenza Viruses	Dr. Honglei Sun Associate Professor of Department of Preventive Veterinary Medicine, College of Veterinary Medicine, China Agricultural University
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
1:00 – 2:00 p.m.	All	Discussion 3 – Getting prepared for final program	
2:00 – 2:40 p.m.	All	Food Safety: Old Challenges in a New Age	Dr. Xiaomeng Wu Associate Professor, College of Food Science and Nutritional Engineering, China Agricultural University
2:50 – 3:30 p.m.	All	Self-Assembly of Starch-Based Magnetic Microbeads for Highly Effective Separation of Foodborne Microbial Pathogens	Dr. Ke Luo Associate Professor, College of Food Science and Engineering, Ocean University of China
Start from 3:40 p.m.	Graduate students	Graduate Report	

## WEEK 2

WEDNESDAY, AUGUST 4

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	Lyme Borreliosis: A Tickborne Disease Involving the Environment, Animals, and People	Dr. Stephen Barthold Professor Emeritus, Pathology, Microbiology & Immunology, University of California, Davis
9:00 – 11:00 a.m.	All	One Health Poster Activity	Ms. Heather Johnson Instructional Systems Designer, Western Institute for Food Safety and Security
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
2:00 – 2:40 p.m.	All	Role of Gut Microbiota on Health and Nutrition of Pigs	Dr. Junjun Wang Deputy Dean, College of Animal Science and Technology
2:50 – 3:30 p.m.	All	Antibiotic Resistance and the Link to Diet in Livestock: Lessons for Tailored Dietary Intervention	Dr. Jinxin Liu Professor, College of Animal Science and Technology, Nanjing Agricultural University
3:40 – 4:20 p.m.	All	Generation of Humanized Rabbit Models by Improved CRISPR Gene Editing System	Dr. Zhanjun Li Professor, Department of Animal Biotechnology, Jilin Provincial Key Laboratory of Animal Embryo Engineering College of animal science, Jilin University
Start from 4:30 p.m.	Graduate students	Graduate Report	



## WEEK 2

THURSDAY, AUGUST 5

One Health Interdisciplinary Education			
Time	Students	Subject	Speaker / Group
8:00 – 8:55 a.m.	All	The Foreign Animal Disease Diagnostic Laboratory: Role in Identifying Zoonotic Diseases	Dr. Robin Holland Head of the Diagnostics Services Section at the Foreign Animal Disease Diagnostic Laboratory of the Plum Island Animal Disease Center
9:00 – 11:00 a.m.	All	Wheel of One Health Game	Mr. Gregory Wlasiuk E-Learning Curriculum Designer; and Ms. Heather Johnson, Instructional Systems Designer, UC Davis Western Institute for Food Safety and Security
11:00 a.m. – 1:00 p.m.	All	LUNCH BREAK	
One Health International Young Scholars Forum			
2:00 – 2:40 p.m.	All	ACAA1 natural mutation affects bovine and buffalo lactation traits via regulating epithelial cell proliferation and secretion function	Dr. Guohua Hua Associate Professor, College of Animal Science and Technology & Veterinary Medicine, Huazhong Agricultural University
2:50 – 3:30 p.m.	All	Orphan Nuclear Receptor RORγ Modulates Cholesterol Metabolism for Anti-mycotoxin Exposure in Piglets	Dr. Demin Cai Professor, College of Animal Science and Technology, Yangzhou University
3:40 – 4:20 p.m.	All	Animal nutrition and intestine health	Dr. Ning Jiao Ph. D, Associate Professor, College of Animal Science and Technology, Shandong Agricultural University
4:30 – 5:10 p.m.	All	Biotransformation of Zearalenone and its Modified Form	Dr. Feifei Sun Associate Professor, College of Animal Science and Technology, Anhui Agricultural University
Start from 5:20 p.m.	Graduate students	Graduate Report	

WEEK 2

FRIDAY, AUGUST 6

International Young Scholars One Health Forum Afternoon Session			
Time	Students	Subject	Speaker / Group
8:00 a.m. – 12:00 p.m.	All	TEAM PRESENTATIONS AND CERTIFICATE CEREMONY	Dr. Bennie Osburn, Ms. Chris Brunner, Mr. Taotao Lu, Mr. Michael Luo

*Congratulations!*



## CONFERENCE & FORUM SPEAKERS



DR. ROB ATWILL

Professor, Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis

DVM, MPVM, University of California, Davis  
Ph.D., Cornell University, Ithaca, NY

Research focus: Water quality and waterborne diseases, preharvest food safety primarily of produce, assessing environmental and agroecosystem health, assessing vertebrate reservoirs of zoonotic pathogens in diverse landscapes as these factors affect sustainability of agricultural systems.



DR. CHRISTOPHER BARKER

Associate Professor, Pathology, Microbiology, & Immunology, School of Veterinary Medicine, University of California, Davis

MS, Virginia Polytechnic Institute and State University, Blacksburg, VA  
MS, Ph.D., University of California, Davis

Research Focus: Ecology and epidemiology of mosquito-borne viruses. Pathogens of interest: West Nile, dengue, Zika, chikungunya, and Rift Valley fever viruses. Climate and landscape factors driving mosquito-borne virus transmission.



DR. STEPHEN BARTHOLD

Professor Emeritus, Pathology, Microbiology & Immunology, University of California, Davis

DVM, University of California, Davis  
MS, Ph.D., University of Wisconsin, Madison

Research Focus: Anatomic Pathology



MS. CHRIS BRUNNER

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

Area of Focus: Liaison for WIFSS international programs serving as link between WIFSS and international One Health programs involving multiple colleges and universities in East Asia.

## CONFERENCE & FORUM SPEAKERS



**DR. CHANG CAI**  
Research Partnerships Coordinator,  
China-Australia Joint Laboratory for Animal Health Big Data Analytics at College of Veterinary  
Medicine and College of Animal Health, Zhejiang A&F University; Specialist, Joint FAO/WHO  
Centre

Research Focus: Animal movement studies in OIE sub-commission for foot and mouth disease.



**DR. DEMIN CAI**  
Professor, College of Animal Science and Technology, Yangzhou University  
  
Ph. D, Animal Physiology and Biochemistry. Nanjing Agricultural University  
Joint Ph.D, Biochemistry and Molecular Medicine University of California, Davis

Research Focus: Animal Physiology and Biochemistry; Molecular Nutrition; Molecular Medicine.



**DR. LIYING CHEN**  
Professor, Department of Preventative veterinary medicine, Henan Agricultural University  
  
PhD of Preventive Veterinary Medicine, Veterinary Medicine in Henan Agricultural University, China

Research Focus: Epidemiology and control of food-borne pathogens, which are mainly about bacteria such as Enterococcus.



**DR. SHUN CHEN**  
Deputy Dean, Department of Preventive Veterinary Medicine, Sichuan Agriculture University  
  
M.S. Preventive veterinary medicine , Sichuan Agricultural University, China  
Ph.D. Preventive veterinary medicine , Sichuan Agricultural University, China  
Postdoctoral Fellows biotechnology ,School of Life Science and Technology, UESTC, Chengdu, China

Research Focus: Avian flavivirus discovery; Immunosuppression mechanism, identification in a non-mammalian.



## CONFERENCE & FORUM SPEAKERS



**DR. CHANGYONG CHENG**  
Associate Professor, Department of Veterinary Medicine, Zhejiang A&F University  
  
Ph.D. Preventive Veterinary Medicine Zhejiang University

Research Focus: Functional genomics of important animal diseases; Biology of food-borne pathogenic microorganisms and infection biology.



**DR. SISKI CROUBELS**  
Professor, Department of Pharmacology, Toxicology and Biochemistry, Faculty of Veterinary Medicine, Ghent University, Belgium  
  
Post-doc, Laboratory of Pharmacology and Toxicology, Ghent University

Research Focus: In vivo ADME processes (absorption, distribution, metabolism, excretion), pharmaco- and toxicokinetic modelling, residues and safety of veterinary drugs and mycotoxins in several animal species, including pig(lets) for preclinical (pediatric) research.



**DR. ERIN DICAPRIO**  
Department of Food Science and Technology, Assistant Specialist in Cooperative Extension in Community Food Safety, College of Agricultural and Environmental Sciences, University of California, Davis  
  
M.S., Ph.D., The Ohio State University

Research Focus: Microbial food safety, with emphasis on foodborne viruses, focused on determining the mechanisms by which fresh produce is contaminated by foodborne viruses during production and processing and which biological and environmental factors influence viral persistence in these foods.



**DR. JOE GAYDOS**  
Senior Wildlife Veterinarian / Science Director, SeaDoc Society, Karen C. Drayer Wildlife Health Center, School of Veterinary Medicine, University of California, Davis,  
  
VMD, School of Veterinary Medicine, University of Pennsylvania  
Ph.D., University of Georgia

Research Focus: Dynamics of disruptive forces, including infectious, parasitic, and environmental toxicological diseases on population fish, marine mammals, and avian species dynamics in the Salish Sea of Washington and British Columbia.

## CONFERENCE & FORUM SPEAKERS



**DR. GUOHUA HUA**  
Associate Professor, Department of Animal Science, Huazhong Agriculture University  
  
Post-doc, University of Nebraska Medical Center

Animal reproductive endocrine regulation and reproduction technology, follicular development regulation, lactation performance regulation.



**DR. JUN HAN**  
Associate Dean for Research and International Communications and Professor of Virology,  
Department of Preventive Veterinary Medicine, China Agricultural University College of Veterinary Medicine  
  
DVM, China Agricultural University  
MS, China Agricultural University  
Ph.D., University of Minnesota-Twin Cities  
Postdoctoral Fellow, Penn State University

Research Focus: Current research interests focus on the replication and pathogenesis of nidoviruses (PRRRSV and PEDV) and herpesviruses (PRV and HSV-1) with an aim to promote animal and human health through better understanding the viruses.



**DR. SHIMODA HIROSHI**  
Associate Professor of Veterinary Microbiology, Joint Faculty of Veterinary Medicine, Yamaguchi University

Research Focus: Infectious Diseases, Zoonosis



**DR. ROBIN HOLLAND**  
Head of the Diagnostics Services Section at the Foreign Animal Disease Diagnostic Laboratory of the Plum Island Animal Disease Center  
  
DVM and Ph.D. in the Veterinary Medical Scholars Program at the University of Illinois at Urbana-Champaign

Research Focus: Diagnostics and high biocontainment facilities, and preparedness and diagnostic response to major foreign animal disease incursions.



## CONFERENCE & FORUM SPEAKERS



DR. MUNIR IQBAL

Professor, The Pirbright Institute, Woking, UK

Ph.D. Veterinary Medicine and MPhil degrees in Pakistan Biotechnology Imperial College London

Research Focus: Avian influenza virus evolution and defining the functional role of evolutionary changes on virus antigenicity, virulence, transmission and host-range; Vaccines and vaccination strategies for avian influenza and Newcastle disease in poultry.



DR. MICHELE JAY-RUSSELL

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.



MS. HEATHER JOHNSON

Instructional Systems Designer, Western Institute for Food Safety and Security

MS in Microbiology, University of California, Davis

Area 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.



DR. NING JIAO

Associate Professor

College of Animal Science and Technology, Shandong Agricultural University

M.S., College of Animal Science and Technology, China Agricultural University

Ph.D., College of Animal Science and Technology, China Agricultural University

Postdoc, China Agricultural University

Research Focus: Nutritional regulation in intestine health

## CONFERENCE & FORUM SPEAKERS



DR. JIANRONG LI  
Professor, Department of Veterinary Medicine, Ohio State University

Postdoctoral, University of Massachusetts Medical School  
PhD, Virology and Immunology, Zhejiang University, P. R. China  
DVM, College of Animal Sciences, Zhejiang University, P. R. China

Research Focus: Pneumovirus replication and gene expression;  
Viral RNA modifications and innate immunity; Vaccine development;  
Emerging viruses such as porcine coronaviruses and SARS-CoV-2.



DR. ZHANJUN LI  
Professor, Department of Animal Biotechnology, Jilin Provincial Key Laboratory of Animal Embryo

PhD, Zoology, Jilin University  
Joint PhD, UW-Madison School of Medicine

Research Focus: High-efficient of genetic modification in rabbits



DR. JINXIN LIU  
Professor, College of Animal Science and Technology, Nanjing Agricultural University  
B.S., Northwest A&F University  
Ph.D., Washington State University  
Postdoc, University of California, Davis

Studies on intestinal microbial and bacterial resistance, including  
resistance groups in the gastrointestinal tract and milk of dairy cows  
and their environmental transfer



DR. XIAOYUN LIU  
Associate Professor, School of Basic Medical Sciences, Peking University, China  
postdoctoral training with Prof. Jorge Galán to study bacterial pathogenesis at Yale University  
School of Medicine

Research Focus: Developing/applying high-throughput proteomic  
technologies in elucidating the molecular mechanisms of bacterial  
pathogens-host interactions.



## CONFERENCE & FORUM SPEAKERS



MR. TAOTAO (ANDY) LU

Ph.D. Candidate, Epidemiology,  
University of California, Davis

MPVM, University of California, Davis

Research Focus: Zoonotic and infectious diseases, spatial and spatio-temporal epidemiology



DR. KE LUO

Associate Professor, College of Food Science and Engineering, Ocean University of China

M.S. in Food microbiology and safety in Kangwon National University

Ph.D. in Food materials and safety from Kyung Hee University in 2020 with funding support from China Scholarship Council and award for the best PhD thesis in Natural Science

Research Focus: Fabrication of starch-based drug carrier for the delivery of hydrophobic bioactive compound and development of rapid detection method for foodborne microbial pathogens.



MR. MICHAEL LUO

Education Specialist and International Programs Coordinator, Western Food Institute For Food Safety & Security

Supported the Education Conferences for One Health for Food Safety and Security as assistant to the Conference Coordinator since 2015. Mr. Luo facilitates in Problem-based Learning team building exercises, and lectures on communication skills.



DR. ESTEBAN SOTO MARTINEZ

Professor, Medicine and Epidemiology, School of Veterinary Medicine University of California, Davis

DVM, Escuela de Medicina Veterinaria, Universidad Nacional, Heredia, Costa Rica

MS, Mississippi State University, College of Veterinary Medicine, Mississippi

Ph.D, Louisiana State University, School of Veterinary Medicine, Louisiana

Research Focus: Fish medicine and particularly bacterial infections in fish including salmonella

## CONFERENCE & FORUM SPEAKERS



**DR. MAELI MELOTTO**  
Professor and Vice-Chair of Agricultural Plant Biology, Department of Plant Sciences, University of California, Davis

M.Sc. in Plant Physiology and Biochemistry, University of São Paulo, Brazil  
Ph.D. in Plant Breeding and Genetics, Michigan State University

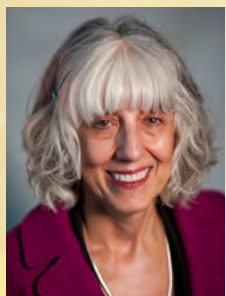
Research Focus: Plant-pathogen interactions, understanding the close interaction between plants and human pathogens at the molecular level.



**DR. BENNIE OSBURN**  
Director, Outreach and Training, Western Institute for Food Safety and Security  
Dean Emeritus, 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

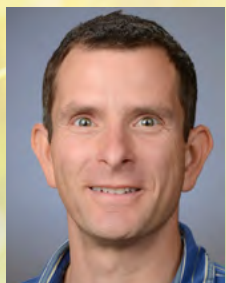
Research Focus: Infectious diseases of livestock, zoonotic diseases, including foodborne pathogens, and the ecology of infectious agents.



**DR. MARGUERITE PAPPAIONOU**  
Affiliate Professor and Associate Director, Center for One Health Research  
Department of Environmental and Occupational Health Sciences  
School of Public Health, University of Washington

DVM, Michigan State University  
MPVM, University of California, Davis  
Ph.D. in Comparative Pathology; UC Davis  
Diplomat, American College of Veterinary Preventive Medicine  
CDC Epidemic Intelligence Service

Emerging zoonotic diseases of pandemic concern; infectious disease surveillance, prevention, and control; food safety, One Health, Planetary Health.



**DR. MAURICE PITESKY**  
Associate Specialist in Cooperative Extension, Population Health & Reproduction, School of Veterinary Medicine, University of California, Davis

MPVM, DVM, University of California, Davis

Research Focus: Application of classic and spatial epidemiology in disease surveillance, food safety management, and other processes associated with poultry health. Application of One Health principles with respect to domestic poultry, wildlife, the environment, and food safety.



## CONFERENCE & FORUM SPEAKERS



DR. ZHONGLI PAN  
Adjunct Professor, Department of Biological and Agricultural Engineering,  
UC Davis

Heating technology for various food processes, including blanching, peeling, roasting, drying, disinfection and disinfestation. He also uses ultrasonic and pulsed electric field technologies for improving food processing efficiency.



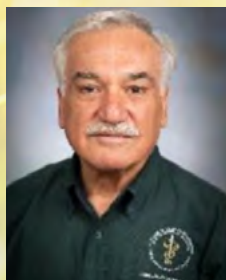
DR. JIAZHANG QIU  
Professor, College of Veterinary Medicine, Jilin University, China  
  
Ph.D. Veterinary Pharmacology, Jilin University

Research Focus: Bacterial pathogenesis; Antimicrobial drug discovery



DR. 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 soil microbial communities of importance to mankind. Research spans from natural to agricultural ecosystems and focused on microbiome solutions under increased world food demand. Results from this work have broad implications from basic research in evolutionary biology to applied aspects, such conservation policies for natural forests.



DR. M.D. SALMAN  
Professor of Preventive Veterinary Medicine and Infectious Animal Diseases,  
Animal Population Health Institute, College of Veterinary Medicine and Biomedical Sciences,  
Colorado State University  
  
MPVM, University of California, Davis  
Ph.D. in Comparative Pathology, University of California, Davis

Epidemiology focused on infectious diseases of livestock, surveillance and control of diseases, global consultant for various international agencies and countries for animal health programs.

## CONFERENCE & FORUM SPEAKERS



**DR. STEFAN SCHWARZ**  
Director of the Institute of Microbiology and Epizootics, Department of Veterinary Medicine, Freie Universität Berlin, Berlin

DVM (Dr. med. vet.) at the Justus-Liebig University Gießen

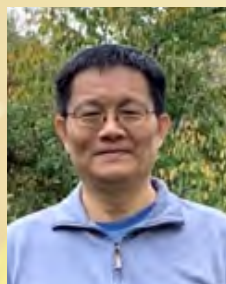
Research Focus: Antibiotic resistance in Gram-positive / Gram-negative bacteria; Structure and regulation of antibiotic resistance genes; Molecular genetics and epidemiology of plasmids, transposons, gene cassettes and integrons, integrative and conjugative elements.



**DR. JIANZHONG SHEN**  
Academician of Chinese Academy of Engineering  
Dean, College of Veterinary Medicine, China Agricultural University

Ph. D., Applied Chemistry Specialty in College of Basic Science and Technology, China Agricultural University  
M. S., Veterinary Pharmacology and Toxicology, Beijing Agricultural University DVM, Beijing Agricultural

Research Focus: Theory and technology of animal-derived food safety and veterinary public health



**DR. CHUNLEI SU**  
Associate Professor, Department of Microbiology, The University of Tennessee

Ph.D. The Pennsylvania State University, PA. Major: Pathobiology. Adviser: Dr. Lorraine M. Sordillo. Dissertation: Isolation of Staphylococcus aureus candidate virulence determinants related to bovine mastitis.

Postdoctoral Research Associate. Dr. David Sibley lab. Washington Univ. School of Medicine, MO. Quantitative trait analysis of T. gondii virulence.

Research Focus: Molecular population genetics and ecology of the zoonotic protozoan parasite Toxoplasma gondii.



**DR. FEIFEI SUN**  
Associate Professor, College of Animal Science and Technology, Anhui Agricultural University

Joint Ph.D. Department of Medicinal Chemistry, School of Pharmacy, University of Minnesota Twin Cities

Research Focus: Analysis of drug and toxin metabolism, pharmacokinetics and veterinary drug residues.



## CONFERENCE & FORUM SPEAKERS



**DR. HONGLEI SUN**

Associate Professor of Department of Preventive Veterinary Medicine, College of Veterinary Medicine, China Agricultural University

MS, Shandong Agricultural University  
DVM, Shandong Agricultural University  
Ph.D., China Agricultural University

Research Focus: Interspecies transmission of the animal virus with potential to cause influenza pandemics in humans, molecular mechanism of interspecies transmission of influenza virus, and development of novel influenza vaccines.



**DR. WIM VAN DER POEL**

Professor of Emerging and Zoonotic Viruses, Wageningen Bioveterinary Research, Wageningen University, The Netherlands

DVM, PhD., in Virology, Utrecht University  
Diplomat of the European College of Veterinary Microbiology

Research Focus: Microbial food safety, with emphasis on foodborne viruses, focused on determining the mechanisms by which fresh produce is contaminated by foodborne viruses during production and processing and which biological and environmental factors influence viral persistence in these foods.



**DR. KOEN VAN ROMPAY**

Infectious Diseases Unit, Core Scientist, Primate Assay Core Lead, California National Primate Research Center, University of California, Davis

DVM, University of Ghent, Belgium  
Ph.D., in Comparative Pathology, University of California, Davis

Research Focus: Research in nonhuman primate models of infectious diseases, with special emphasis on emerging viral diseases, and interventions to prevent or treat disease. While most of the research has focused on HIV, in more recent years it has broadened to other infections, including Zika virus, Chikungunya virus and SARS-CoV-2.



**DR. TIMOTHY R. WALSH**

Professor, Department of Zoology, University of Oxford

Ph.D. Molecular Microbiology, University of Bristol

Research Focus: AMR mechanisms; AMR in public health sectors; Risks of still-born infants and maternal care.

## CONFERENCE & FORUM SPEAKERS



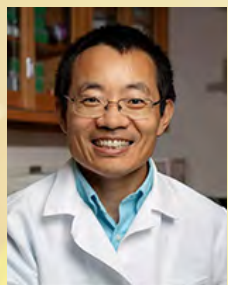
DR. CUINA WANG  
Associate professor, College of Food Science and Engineering, Jilin University  
  
Ph.D. Jilin University

Research Focus: Functionality and application of milk proteins, development of functional dairy foods.



DR. JUNJUN WANG  
Professor and Associate Dean from College of Animal Science and Technology, China Agricultural University.  
  
Doctor, Microbiology, Academy of Military Medical Sciences  
Post-doctorate in Animal Husbandry/Animal Nutrition and Feed Science, China Agricultural University  
Postdoc/Visiting Scholar, Texas A&M University Animal Nutrition Biochemistry

Swine nutrition, especially the characteristics for nutritional metabolism and microbial colonization of the low birth weight piglets.



DR. LEYI WANG  
Assistant Professor, Department of Veterinary Medicine, University of Illinois  
  
D.V.M. equivalent degree, Shandong Agricultural University  
Master of Science, College of Veterinary Medicine, Department of Preventive Veterinary Medicine, China Agriculture University  
Ph.D., Ohio State University, Food Animal Health Research Program of Veterinary Preventive Medicine  
Diplomate, Virology specialty, American College of Veterinary Microbiologists

Research Focus: Infectious Agent Detection/Diagnostics, Food Safety; Sterilization/Disinfection and Bioremediation



DR. 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.



## CONFERENCE & FORUM SPEAKERS



**DR. XIN WANG**  
Professor, College of Food Science and Engineering, Northwest A&F University

Post-doctorate, School of Veterinary Medicine, Northwest A&F University, Yangling, China  
Visiting Scholar, University of Maryland and FDA, Maryland, USA  
PhD, College of Animal Science and Technology, Sichuan Agricultural University, Ya'an, China  
Master, College of Animal Science and Technology, Sichuan Agricultural University, Ya'an, China

Research Focus: Functional polysaccharides and the utilization of the wastes generated from food processing.



**DR. YANG WANG**  
Professor and Vice Head of Section of Antimicrobial Resistance in Bacteria of Animal, Human and Environment Origin, College of Veterinary Medicine, China Agricultural University

MS, South China Agricultural University  
DVM, Hunan Agricultural University

Research Focus: Emergence and molecular genetics characteristic of bacterial resistance to antibiotic.  
The epidemiology, transmission, and associated risk factors of antimicrobial resistant bacteria.



**MR. 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.



**DR. XIAOMENG WU**  
Associate Professor, College of Food Science and Nutrition Engineering, China Agriculture University.

Bachelor degree, Food Science, Bachelor degree, Purdue University  
Ph.D., Food Science, The University of Georgia

Reinvent food packaging; Reduce health risks; Replace with bioplastics.

## CONFERENCE & FORUM SPEAKERS



DR. YUNFEI XIE  
Deputy Dean, College of Food Science and Technology, Jiangnan University

Ph.D., Physical Chemistry, State Key Laboratory of Supramolecular Structure and Materials, Jilin University  
Ph.D. "National Construction High-level University" Joint Candidate, Kansai Gakuin University, Japan

Research Focus: Degradation of parathion methyl in bovine milk by high-intensity ultrasound: Degradation kinetics, products and their corresponding toxicity Scalping of aroma compounds from food simulants into polyethylene terephthalate laminated steel



DR. ZHEN YANG  
Associate Professor, College of Veterinary Medicine, Nanjing Agricultural University

B.S., South China Agricultural University  
DVM, University of Minnesota

Research Focus: Population Medicine of Swine and Cattle; Animal Epidemiology and cross-border animal infectious diseases.



DR. QIJING ZHANG  
Associate Dean, College of Veterinary Medicine, Iowa State University

B.V.Sc Shandong Agricultural University (China) Vet Medicine  
M.S. National Inst. Veterinary Biologics (China) Vet Microbiology  
Ph.D. Iowa State University, Immunobiology  
Postdoc, University of Missouri-Columbia, Molecular Microbiology

Research Focus: Food safety; antibiotic resistance; Bacterial pathogenesis; Pathogen-host interactions; Prevention and control of infectious diseases.



DR. LING ZHAO  
Professor, Head of Public Health Department, College of Veterinary Medicine, Huazhong Agricultural University

Ph. D. in Veterinary Pathology ,  
University of Georgia, Athens, GA, USA  
Master in Preventive Veterinary Medicine, Huazhong Agricultural University, Wuhan, China

Research Focus: Understanding how rabies virus interacts with the host, especially how rabies virus evades the host immune responses.



## CONFERENCE & FORUM SPEAKERS



DR. KUI ZHU  
Professor, College of Veterinary Medicine, China Agricultural University

Doctor degree from Ludwig Maximilians University Munich (LMU Munich) in Germany.  
Postdoc training at Duke University in the U.S. Since Sept.

Research Focus: Antibacterial target identification and antibiotic discovery to combat multi-drug resistant bacterial pathogens.



# ONE HEALTH

ZOONOTIC DISEASES IMPACT ON FOOD SYSTEMS

UC DAVIS EDUCATION CONFERENCE ON ONE HEALTH FOR FOOD SAFETY, AGRICULTURE, AND ANIMAL HEALTH

