



**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

# ONE HEALTH

FOOD SAFETY, AGRICULTURE  
AND ANIMAL HEALTH

**CONFERENCE SCHEDULE**

**FEBRUARY 7 - 18, 2022**

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

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





The 2022 UC Davis Education Conference on One Health for Food Safety, Agriculture, and Animal Health held online February 7 – February 18, 2022, 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. 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 other universities around the world. 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. Our comprehensive program includes lectures, learning activities, and team-building exercises which increase participants' awareness of taking an interdisciplinary approach to solving complex problems. Participants will have the chance to work together on team-building activities and build friendships through problem-based learning projects.



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 a.m.	All	Welcome and Introduction of One 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
10:00 – 11:00 a.m.	All	One World, One Pandemic and One Health	Dr. Linfa Wang Director of the Programme in Emerging Infectious Diseases at Duke – NUS Medical School, Singapore
11:00 a.m. – 12:00 p.m.	All	The Power of One One World – One Health	Ms. Chris Brunner Communications and International Programs Director, Western Institute for Food Safety and Security, University of California, Davis
12:00 – 1:30 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
1:30 – 2:20 p.m.	Graduate & Undergraduate Students	Team Work 1	UC Davis Facilitators
2:30 – 3:10 p.m.	All	Benefit and Risk of Utilizing Antimicrobials	Dr. Yang Yu Associate Professor in Pharmacology and Toxicology, College of Veterinary Medicine South China Agricultural University
3:20 – 4:00 p.m.	All	Impacts of the ASFV Outbreak in China (SE Asia) on Food Security, Human Health, and Environment	Dr. Yingjuan Qian Professor in Preventive Veterinary Medicine, College of Veterinary Medicine Nanjing Agricultural University
4:05 – 4:25 p.m.	All	Graduate Report - Novel Plasmid-mediated Efflux Pumps Conferring Resistance to Multiple Drugs Including Tigecycline	Mr. Chengzhen Wang College of Veterinary Medicine, South China Agricultural University
4:30 – 4:50 p.m.	All	Graduate Report - Global Transcriptional Responses in Ciprofloxacin Heteroresistant Sub-clones of Salmonella Enterica Serovar Typhimurium Bearing pHXY0908 by Weighted Gene-coexpression Network Analysis	Ms. Mengyuan Li College of Veterinary Medicine, South China Agricultural University

TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 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
10:00 – 11:00 a.m.	All	Study of Infection and Contamination of Plants (Model and Crop) with Plant and Human Pathogens	Mr. David Bridges PhD student in Plant Biology, Department of Plant Sciences, University of California, Davis
11:00 a.m. – 12:00 p.m.	All	Introduction to Essay Writing	Dr. June Barrera DVM, MPVM University of California, Davis
12:00 – 2:00 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
2:00 – 2:40 p.m.	All	Challenges, Landscape and Outlook for AMR in the Future	Dr. Yang Wang Professor and Vice Head, Section of Antimicrobial Resistance in Bacteria of Animal, Human and Environment Origin, College of Veterinary Medicine, China Agricultural University
2:50 – 3:30 p.m.	All	A Further Understanding of Antimicrobials and Antimicrobial-resistance (AMR) in the Food Chain	Dr. Libang Zhou Assistant Professor, College of Food Science and Technology, Nanjing Agricultural University
3:40 – 4:20 p.m.	All	Understanding the Transmission of Novel Antimicrobial Resistance Genes in the One Health Perspective	Dr. Ruichao Li Professor, College of Veterinary Medicine, Yangzhou University
4:25 – 4:45 p.m.	All	Graduate Report – Prevalence Characteristics and Transmission Mechanism of Multidrug – resistant Plasmids in the Live Poultry Market	Ms. Yi Yin College of Veterinary Medicine, Yangzhou University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 a.m.	All	Overview of Dairy Herd Health	Dr. Richard Pereira Associate Professor of Clinical Livestock Herd Health, School of Veterinary Medicine, University of California, Davis
10:00 – 11:00 a.m.	All	Hazard Analysis Critical Control Point (HACCP) – Training One Health Practitioners for Food Systems Inspections	Mr. David Goldenberg Food Safety and Security Training Coordinator, Western Institute for Food Safety and Security, University of California, Davis
11:00 a.m. – 12:00 p.m.	All	From Farm to Table – Identifying Potential Pathogen Outbreaks Along the Food Chain	Mr. David Goldenberg Food Safety and Security Training Coordinator, Western Institute for Food Safety and Security, University of California, Davis
12:00 – 2:00 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
2:00 – 2:40 p.m.	All	One Health Approach to Address AMR	Dr. Joanna McKenzie Specialist in One Health Epidemiology and International Development in the mEpiLab, School of Veterinary Science, Massey University, New Zealand
2:50 – 3:30 p.m.	All	The Superbug Transmission between Human and Animals: A Very Complicated Issue.	Dr. Rui Zhou Professor, College of Animal Science and Technology · College of Veterinary Medicine, Huazhong Agricultural University
3:40 – 4:20 p.m.	All	Research Progress on the Emergence and Transmission of Antibiotics Resistance of <i>Staphylococcus aureus</i> Based on Omics	Dr. Huping Xue PhD, Associate Professor, Northwest A&F University
4:25 – 4:45 p.m.	All	Graduate Report – Molecular Epidemiology of Multidrug – Resistant <i>Escherichia coli</i> from Migratory Birds in Eastern China	Mr. Wenhui Zhang College of Veterinary Medicine, Yangzhou University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 a.m.	All	Demand for Animal Protein/ Protecting the Environment	Dr. Frank Mitloehner Professor and Air Quality Extension Specialist, Department of Animal Science, and Director of Clarity and Leadership for Environmental Awareness and Research (CLEAR Center), University of California, Davis
10:00 – 11:00 a.m.	All	Environmental Impact of Dairy – The 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
11:00 a.m. – 12:00 p.m.	All	Managing a Dairy Farm for Animal Health, Public Health, Ecosystem Health, and Its Financial Well – Being	Dr. James Cullor Professor Emeritus, Department of Population, Health and Reproduction, University of California, Davis
12:00 – 1:30 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
1:30 – 2:20 p.m.	Graduate & Undergraduate Students	Team Work 2	UC Davis Facilitators
2:30 – 3:10 p.m.	All	Challenges, Landscape and Outlook, Research Focuses, Global Collaborative Actions	Dr. Wim van der Poel Professor of Emerging and Zoonotic Viruses, Wageningen Bioveterinary Research, Wageningen University, The Netherlands
3:20 – 4:00 p.m.	All	Contamination of Salmonella and Biofilm Formation on Food-contact Surfaces	Dr. Huhu Wang Associate Professor, College of Food Science and Technology, Nanjing Agricultural University
4:05 – 4:25 p.m.	All	Graduate Report – Prediction of Fusarium Head Blight in Wheats	Ms. Nan Wang College of Plant Protection, Anhui Agricultural University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 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
10:00 – 11:00 a.m.	All	A “Bad Metal” Primer: Examples of Metals that Pollute Our Environment and Adversely Affect Human and Animal Health	Dr. Robert Poppenga Professor, California Animal Health and Food Safety Lab Molecular Biosciences, UC Davis
11:00 a.m. – 12:00 p.m.	All	Poster Review	Dr. Bennie Osburn Director, Outreach and Training, Western Institute for Food Safety and Security, Dean Emeritus, School of Veterinary Medicine, University of California, Davis  Ms. Chris Brunner Communications and International Programs Director, Western Institute for Food Safety and Security, University of California, Davis  Mr. Taotao (Andy) Lu PhD student, Epidemiology, University of California, Davis
12:00 – 2:00 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
2:00 – 2:40 p.m.	All	One health framework to advance food safety and security: A case study in the Rwandan dairy sector	Dr. Sara Garcia Project Scientist, Western Institute for Food Safety and Security, University of California, Davis
2:50 – 3:30 p.m.	All	Role of Hypermutability in the Development of Antibiotic Resistance in Staphylococcus aureus	Dr. Shaochen Wang Lecturer, College of Food Science and Technology, Nanjing Agricultural University
3:35 – 3:55 p.m.	All	Graduate Report – Mobilization of tet(X4) by IS1 Family Elements in Porcine Escherichia coli Isolates	Mr. Zheng Chen College of Veterinary Medicine, Henan Agricultural University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 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 – 11:00 a.m.	All	Role of Diagnostic Laboratories for Surveillance	Dr. Jennine Ochoa Professor, California Animal Health and Food Safety Laboratory, Department of Microbiology & Immunology, School of Veterinary, University of California, Davis
11:00 a.m. – 12:00 p.m.	All	Sources of Fecal Contamination on Raw Produce	Dr. Michele Jay – Russell Program Manager, Western Center for Food Safety, University of California, Davis
12:00 – 1:30 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
1:30 – 2:20 p.m.	Graduate & Undergraduate Students	Team Work 3	UC Davis Facilitators
2:30 – 3:10 p.m.	All	Vaccine Development for the Ubiquitous Parasite <i>Toxoplasma gondii</i>	Dr. Bang Shen PhD, Professor, College of Animal Science and Technology•College of Veterinary Medicine, Huazhong Agricultural University
3:15 – 3:35 p.m.	All	Graduate Report – miRNAs Regulate HCT – 8 Cells Apoptosis Induced by <i>Cryptosporidium Parvum</i> Infection	Ms. Juanfeng Li College of Veterinary Medicine, Henan Agricultural University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 a.m.	All	A Day in the Life of the Emergency Animal Clinic, Veterinary Medical Teaching Hospital, UC Davis	Dr. Kate Hopper Professor, Surgical & Radiological Sciences, School of Veterinary Medicine, University of California, Davis
10:00 – 11:00 a.m.	All	One Health Approaches in Agricultural Engineering	Dr. Andre Daccache Assistant professor, Department of Biological and Agricultural Engineering, University of California, Davis
11:00 a.m. – 12:00 p.m.	All	Preparing for Disasters – Issues from a One Health Approach	Ms. Heather Johnson Instructional Systems Designer, Western Institute for Food Safety and Security, University of California, Davis
12:00 – 2:00 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
2:00 – 2:40 p.m.	All	Toxoplasmosis: cats should not take all the blame	Dr. Feng Yu (Lydia) DVM, Associate Professor, College of Veterinary Medicine, China Agricultural University
2:50 – 3:30 p.m.	All	Some Stories of Parasite Roundworms	Dr. Yue Xie Associate Professor, College of Veterinary Medicine, Sichuan Agricultural University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 a.m.	All	Taking a One Health Approach to Comparative Genetic Diseases Affecting Animals and People	Dr. Danika Bannasch Professor, Department of Population Health and Reproduction, University of California, Davis
10:00 – 11:00 a.m.	All	Taking a One Health Approach to Achieve Public and Global Health Objectives	Dr. Marguerite Pappaioanou 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. – 12:00 p.m.	All	Student Life at UC Davis	Mr. Taotao (Andy) Lu PhD student, Epidemiology, University of California, Davis
12:00 – 1:30 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
1:30 – 2:20 p.m.	Graduate & Undergraduate Students	Team Work 4	UC Davis Facilitators
2:30 – 3:10 p.m.	All	The Function of Shuttle Proteins in Toxoplasma Replication	Dr. Heng Zhang PhD, Lecturer, College of Veterinary Medicine, Henan Agricultural University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 10:00 a.m.	All	How to Communicate Scientific Subjects to the Public	Mr. Gregory Wlasiuk E – Learning Curriculum Designer Ms. Heather Johnson Instructional Systems Designer, Western Institute for Food Safety and Security University of California, Davis
10:00 a.m. – 12:00 p.m.	All	Wheel of One Health	Mr. Gregory Wlasiuk E – Learning Curriculum Designer Ms. Heather Johnson Instructional Systems Designer, Western Institute for Food Safety and Security University of California, Davis
12:00 – 1:30 p.m.	All	LUNCH BREAK	
<b>ONE HEALTH INTERNATIONAL YOUNG SCHOLARS FORUM</b>			
1:30 – 2:20 p.m.	Graduate & Undergraduate Students	Team Work 5	UC Davis Facilitators
2:30 – 3:10 p.m.	All	Coronavirus S and HE Proteins: A Two-component System for Dynamic Virus-receptor Interactions	Dr. Yifei Lang Associate Professor, College of Veterinary Medicine, Sichuan Agricultural University
3:20 – 4:00 p.m.	All	Seroepidemiological Study of SARS-CoV-2 Infections in Companion Animals	Dr. Shan Zhao Lecturer, College of Veterinary Medicine, Sichuan Agricultural University



TIME	PARTICIPANTS	SUBJECT	SPEAKER
<b>ONE HEALTH INTERDISCIPLINARY EDUCATION</b>			
9:00 – 9:15 a.m.	All	Closing Remarks	Dr. Bennie Osburn Director, Outreach and Training, Western Institute for Food Safety and Security, Dean Emeritus, School of Veterinary Medicine, University of California, Davis
	All	Team Presentations	
	All	Certificate Ceremony	Mr. Taotao (Andy) Lu PhD student, Epidemiology, University of California, Davis

*Congratulations!*



## CONFERENCE SPEAKERS



### DR. DANIKA BANNASCH

Professor and Maxine Adler Endowed Chair in Genetics,  
Department of Population Health and Reproduction,  
School of Veterinary Medicine,  
University of California Davis

PhD, Princeton University  
DVM, University of California Davis

**Research Focus:** Inherited diseases in companion animals.



### 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, PhD, 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. JUNE BARRERA, DVM

Master of Preventive Veterinary Medicine Candidate, University of California, Davis  
Research Advisors:  
Dr. Jonna Mazet, UC Davis  
Dr. Rudovick Kazwala, Sokoine University of Agriculture

DVM, University of California, Davis School of Veterinary Medicine  
BS in Ecology, Behavior, and Evolution, University of California, Los Angeles

**Research Focus:** Best practices in data-sharing in the One Health community.



### MR. DAVID BRIDGES

PhD student in Plant Biology, Department of Plant Sciences, University of California, Davis

Research Advisor: Dr. Maeli Melotto

MS, Food Science and Human Nutrition, University of Maine  
BS, Biology and Ecology, University of Maine

**Research Focus:** Foodborne pathogens, post-harvest processing, plant-microbe interactions



## CONFERENCE SPEAKERS



### 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.



### DR. JAMES CULLOR

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

DVM, Kansas State University; PhD 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.



### DR. ANDRE DACCACHE

Assistant professor, Department of Biological and Agricultural Engineering, University of California, Davis

MSc in land and water resources management, CIHEAM-Bari  
PhD in Hydraulic engineering, Politecnico di Bari (Italy)

**Research Focus:** Agricultural water management, precision irrigation, remote sensing, climate change impact on crop productivity and water resources availability, irrigation engineering.



### DR. SARA GARCIA

Project Scientist, Western Institute for Food Safety and Security, University of California, Davis

BS in Genetics, University of California, Davis  
PhD in Integrative Pathobiology, University of California, Davis

**Research Focus:** Food safety, microbiology, and molecular genetics. Dr. Garcia has worked with academic and industry partners to influence best practices and guidelines for the application of technology in food safety and food systems

## CONFERENCE SPEAKERS



### MR. DAVID GOLDENBERG

Food Safety and Security Training Coordinator, Western Institute for Food Safety and Security, University of California, Davis

BS, The Ohio State University  
MS, University of California, Davis

**Areas of Focus:** Food safety, with primary focus on growing produce and food packing facilities. Food security to prevent intentional adulteration.



### DR. KATE HOPPER

Professor of Small Animal Emergency and Critical Care, School of Veterinary Medicine, University of California, Davis

BVSc, University of Melbourne, Australia  
MVS, University of Melbourne, Australia  
PhD, University of California, Davis

**Research Focus:** Acid-base and electrolyte disorders, cardiopulmonary resuscitation, and mechanical ventilation



### DR. MICHELE JAY-RUSSELL

Program Manager for the Western Center for Food Safety, University of California, Davis

DVM, University of California, Davis  
PhD 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

**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.



## CONFERENCE SPEAKERS



### DR. YIFEI LANG

Associate Professor, College of Veterinary Medicine, Sichuan Agricultural University

PhD, University of Utrecht

MS, Preventive Veterinary Medicine, Graduate School of Chinese Academy of Agricultural Sciences

**Research Focus:** Coronavirus-receptor interaction and cross-host transmission.



### DR. RUICHAO LI

Responsible for five research projects covering nanopore sequencing application and AMR research.

PhD in Biological science, The Hong Kong Polytechnic University

MS in Basic veterinary medicine, China Agricultural University

**Research Focus:** Antimicrobial resistance (AMR) and application of novel sequencing technologies (such as Oxford Nanopore Technologies), focusing on molecular mechanisms of resistance, MDR plasmids and bacterial genomics.



### MR. TAOTAO (ANDY) LU

PhD student, Epidemiology, University of California, Davis

Research Advisor: Dr. Beatriz Martínez-López

MPVM, University of California, Davis

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



### MR. MICHAEL LUO

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

MS in Agriculture Extension

**Areas of Focus:** 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.

## CONFERENCE SPEAKERS



### 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  
PhD, Louisiana State University, School of Veterinary Medicine, Louisiana

**Research Focus:** His main research interests are the pathogenesis of important infectious diseases of wild and aquatic animals and the development of best management strategies for prevention and treatment of these diseases.



### DR. JOANNA MCKENZIE

Specialist in One Health Epidemiology and International Development in the mEpiLab, School of Veterinary Science, Massey University, New Zealand

PhD (Epidemiology), Massey University, NZ  
Master of Preventive Veterinary Medicine (Epidemiology), University of California, Davis, USA  
Bachelor of Veterinary Science, Massey University, NZ

**Research Focus:** Expertise and experience in implementing AMR and infectious disease surveillance in resource-limited settings. Major interest and expertise in research that informs policy for controlling endemic and emerging zoonotic diseases, antimicrobial resistance and the ecology and epidemiology of diseases involving wildlife reservoirs.



### DR. FRANK MITLOEHNER

Professor and Air Quality Extension Specialist, Department of Animal Science, University of California, Davis

MS, Agricultural Engineering and Animal Science, University of Leipzig, Germany  
Grad studies, Animal Science, University of Goettingen, Germany  
PhD, 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.



### DR. JENNINE OCHOA

Assistant Professor, California Animal Health and Food Safety Lab; Pathology, Microbiology & Immunology School of Veterinary Medicine University of California, Davis

DVM, University of California, Davis  
PhD, Washington State University  
Diplomate, American College of Veterinary Pathologists

**Research Focus:** Diagnostic pathology of agricultural livestock and poultry with an emphasis on diagnosis and surveillance of animal diseases that are of human and economic concern.



## CONFERENCE SPEAKERS



### 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 PhD, 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. 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

MS, Washington State University, Pullman, and M. Tech. at Indian Institute of Technology, Kharagpur;  
PhD, 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.



### 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  
PhD in Comparative Pathology; UC Davis Diplomat, American College of Veterinary Preventive Medicine CDC Epidemic Intelligence Service

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



### DR. RICHARD PEREIRA

Associate Professor, Department of Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis  
Externship, Washington State University, Veterinary Teaching Hospital, Pullman, WA

BVSc, Federal University of Uberlandia, Uberlandia, MG, Brazil  
Intern, University of Florida, Gainesville, FL  
Resident Certificate, Cornell University Hospital for Animals (CUHA), Ithaca, NY  
PhD, Cornell University, College of Veterinary Medicine, Ithaca, NY

**Research Focus:** Food Animal Herd Health & Reproduction; Epidemiology; Antimicrobial Resistance.

## CONFERENCE SPEAKERS



### DR. ROBERT POPPENG

Professor, California Animal Health and Food Safety Lab Molecular Biosciences, University of California, Davis

DVM, University of Illinois, College of Veterinary Medicine, Urbana-Champaign, IL  
PhD, University of Illinois, College of Veterinary Medicine, Urbana-Champaign, IL  
Diplomate, American Board of Veterinary Toxicology

**Research Focus:** Veterinary Clinical Toxicology, Diagnostic Veterinary Toxicology: Diagnostic testing methods for animal intoxications; wildlife toxicology; biomarker development to better define exposure to toxicants.



### DR. YINGJUAN QIAN

Professor in Preventive Veterinary Medicine, Nanjing Agricultural University

DVM, Nanjing Agricultural University  
Preventive Veterinary Medicine, Nanjing Agricultural University  
PhD in Cell Biology from University of Alabama at Birmingham  
Postdoctoral Training, University of California, Davis

**Research Focus:** Leading scientist at NAU One Health Center and Deputy Director of the Joint International Laboratory of Animal Health and Food Safety, Ministry of Education, China. Her research focuses on virus-host interactions to understand viral pathogenesis, i.e., ASFV, as well as developing prevention and control methods.



### DR. JORGE RODRIGUES

Professor, Department of Land, Air and Water Resources, University of California, Davis

MSc in Microbiology, University of São Paulo, Brazil PhD, 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. BANG SHEN

Professor, School of Veterinary Medicine, Huazhong Agricultural University

PhD in Microbiology and Molecular Genetics, University of Kansas Medical Centre, USA  
Postdoctoral fellow (Molecular Parasitology) Washington University in St Louis, MO, USA

**Research Focus:** Molecular mechanisms governing Toxoplasma parasitism and pathogenesis; carbon metabolism and its regulation; molecular mechanisms that control the transition of acute infection to chronic infection; design of live attenuated anti-toxoplasmic vaccines for animals.



## CONFERENCE SPEAKERS



### DR. WIM VAN DER POEL

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

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

**Research Focus:** New and emerging viruses, Foodborne and Zoonotic viruses and 'Global One Health'. Detection and characterization of emerging and zoonotic viruses in the different hosting animals, as well as in food and environmental matrices.



### DR. Huhu WANG

Associate professor, PhD supervisor, key member of National center of meat quality and safety and control in China

PhD in Food Science, Nanjing Agricultural University

**Research Focus:** Eliminate biofilms formed by meat-borne pathogens (Salmonella, E. coli, and others); Enable targeted recognition of microbial spoilage and environmental persistence, and extend the shelf life of meat, poultry and related products.



### DR. LINFA WANG

Director of the Programme in Emerging Infectious Diseases at Duke-NUS Medical School, Singapore

BS, East China Normal University in Shanghai  
PhD, University of California, Davis

**Research Focus:** Dr. Wang played a leading role in identifying bats as the natural host of the Severe Acute Respiratory Syndrome (SARS) virus. Current research focuses on better understanding virus-bat interaction.



### DR. SHAOCHEN WANG

College of Food Science and Technology, Nanjing Agricultural University

PhD in Veterinary Pharmacology and Toxicology, Beijing Agricultural University  
DVM in Veterinary Medicine, Nanjing Agricultural University

**Research Focus:** AMR mechanisms; Soil Resistome; Functional Metagenomics

## CONFERENCE SPEAKERS



### 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

MA 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. YUE XIE

Associate Professor, College of Veterinary Medicine, Sichuan Agricultural University.

D.V.Sc and M.V.Sc, Sichuan Agricultural University, China  
Joint Ph.D., Beltsville Human Nutrition Research Center, ARS-USDA, USA

**Research Focus:** Drug resistance and vaccine development of animal parasitic diseases.



### DR. HUPING XUE

Associate professor, PhD supervisor, evaluating expert of NSFC, communication review expert for dissertations of the Ministry of Education in China

PhD, Fudan University

**Research Focus:** Mining new antimicrobial peptides and antibacterial agents from natural products, and reforming them; The mechanism of antimicrobial peptides/antibiotics was elucidated by using *Staphylococcus aureus* as target bacteria; *Escherichia coli*, *Bacillus subtilis*, lactic acid bacteria and *Pichia pastoris* were used as expression hosts to construct high expression system of antimicrobial peptides and achieve large-scale production of antimicrobial peptides.



## CONFERENCE SPEAKERS



### DR. FENG YU

Associate Professor, College of Veterinary Medicine, China Agricultural University

DVM, University of California, Davis

**Research Focus:** Small animal internal medicine, oncology, exotic species



### DR. YANG YU

Associate Professor, College of Veterinary Medicine, South China Agricultural University

MS, South China Agricultural University

PhD, South China Agricultural University and Cardiff University

**Research Focus:** Pharmacology, pharmacokinetics and pharmacodynamics; Antimicrobial resistance; Infectious diseases and microbiology



### DR. HENG ZHANG

College of Veterinary Medicine, Henan Agricultural University, China

PhD, College of Veterinary Medicine, China Agricultural University, China

**Research Focus:** Molecular function of *Toxoplasma gondii* and *Neospora caninum*



### DR. LIBANG ZHOU

Assistant Professor, College of Food Science and Technology, Nanjing Agricultural University, Nanjing

BS, Nanjing Agricultural University

PhD, Institute of Bioprocess and Biosystems Engineering, Hamburg University of Technology

**Research Focus:** Food microbiology, food biotechnology, metabolic engineering, synthetic biology.



### DR. SHAN ZHAO

Lecturer, College of Veterinary Medicine, Sichuan Agricultural University

PhD, University of Utrecht

MS, College of Veterinary Medicine, Sichuan Agricultural University

**Research Focus:** Animal coronavirus



### DR. RUI ZHOU

Professor, College of Veterinary Medicine, Huazhong Agricultural University  
Director of International Research Center for Animal Disease (Ministry of Science & Technology of China)

MS, Huazhong Agricultural University (HZAU)

DVM, the University of Munich

**Research Focus:** Pathogenomics and control strategies of veterinary and zoonotic bacterial diseases, including microbial population genomics and epidemiology, dynamics of antimicrobial resistance (AMR) transmission, mechanism of bacterial cell division and metabolism regulation, development of diagnostics, vaccines, and antibacterial drugs.



## GRADUATE SPEAKERS



### MR. ZHENG CHEN

School of Veterinary Medicine, Henan Agriculture University

BS, School of Veterinary Medicine, Henan Agriculture University

**Research Focus:** Veterinary Pharmacology and Toxicology



### MS. JUANFENG LI

College of Veterinary Medicine, Henan Agricultural University

BS, College of Veterinary Medicine, Henan University of Science and Technology

**Research Focus:** During the postgraduate period, mainly engaged in the study on the mechanism of miR-942 and miR-3976 regulates HCT-8 cell apoptosis during the early phase of *Cryptosporidium parvum* infection, as well as the molecular identification and biological characteristics of *Cryptosporidium*.



### MS. MENGYUAN LI

College of Veterinary Medicine, South China Agricultural University

BS, Henan University of Animal Husbandry and Economy

**Research Focus:** Transcriptional regulation mechanism of heteroresistance in *Salmonella*.



### MR. CHENGZHEN WANG

College of Veterinary Medicine, South China Agricultural University

BS, College of Veterinary Medicine, South China Agricultural University

**Research Focus:** Plasmid-mediated antimicrobial resistances transmission and mechanisms in Gram-negative bacteria; RND-type efflux pumps and its regulation in antibiotic resistance.

## GRADUATE SPEAKERS

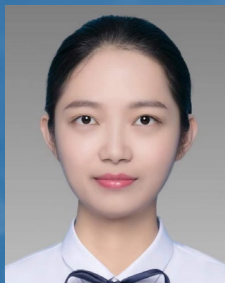


### **MS. NAN WANG**

University of Agricultural Anhui China (AAU)

BS, The University of Agricultural Jiangxi China

**Research Focus:** Prediction of Fusarium head blight in wheats



### **MS. YIN YI**

College of Veterinary Medicine, Yangzhou University

BS, Yangzhou University, Veterinary Medicine

**Research Focus:** Molecular mechanism of transfer element-mediated gene transfer of emerging drug resistance; Application of novel sequencing technology in genomics research of drug-resistant bacteria.



### **MR. WENHUI ZHANG**

Yangzhou University, Basic veterinary, Veterinary Pharmacology and Toxicology laboratory

BS, Yangzhou University, Veterinary Medicine

**Research Focus:** Prevalence and dissemination of antibiotic resistance genes in environment and animals.



A large, blue, spherical water tower stands against a backdrop of a cloudy sky. The tower is supported by a complex metal lattice structure. The words "UC DAVIS" are printed in large, bold, blue letters across the middle of the sphere.

# ONE HEALTH

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

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