



# ONE HEALTH

FOOD SYSTEMS CONFERENCE

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

CONFERENCE

JULY 20-31, 2020

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







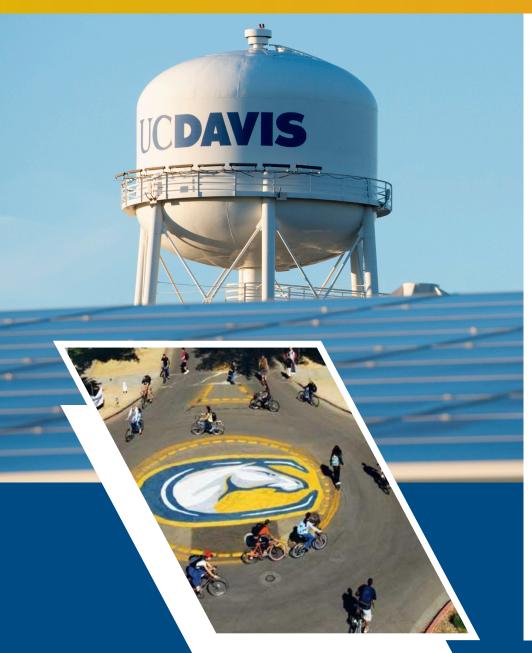




## **ABOUT UC DAVIS**

**OUR STORY** 





UC Davis is the home of the Aggies — gogetters, change makers and problem solvers who make their mark at one of the top public universities in the United States.

Since we first opened in 1908, we've been known for standout academics, sustainability and Aggie Pride as well as valuing the Northern California lifestyle. These themes are woven into our 100-plus-year history and our reputation for solving problems related to food, health, the environment and society.

Our 5,300-acre campus borders the city of Davis, a vibrant college town of about 68,000 people living in Yolo County. The state capital is 20 minutes away, and world-class destinations such as the San Francisco Bay Area, Lake Tahoe and the Napa Valley are within a two-hour drive.







39,152

enrolled students

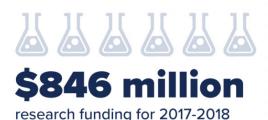


102
MAJORS



**22,000** b

bicycles on campus a day









1st in the world for veterinary medicine



1st in the nation for agriculture



1st in the nation for diversity and internationalization



2nd nationally among
Affordable Elite
Colleges



5th among public universities in the U.S.



9th among U.S. institutions granting undergraduate degrees to students of



## **ABOUT WIFSS**

WHAT WE DO



The Western Institute for Food Safety and Security (WIFSS) is a University of California, Davis program of the School of Veterinary Medicine and the College of Agricultural and Environmental Sciences.

Since 2015, WIFSS has sponsored in-depth educational experiences for undergraduate, Ph.D. students, and faculty, to learn about the importance of applying a One Health approach to solving problems concerning food safety and security, and animal health. We have successfully sponsored One Health conferences for more than 500 participants including students and faculty from universities and vocational colleges throughout multiple provinces in China.



#### **OUR MISSION**

Our mission is to serve the global community by conducting research, developing training, and providing outreach programs that focus on safer, better quality food systems, water quality, and healthy animals, to safeguard the health and security of people, animals, and the environment.



## **WIFSS LEADERSHIP**





**ROB ATWILL**DVM, MPVM, PhD

Director



DVM, PhD, Dipl. ACVP

Director of Outreach and Training

Dean Emeritus, School of

Veterinary Medicine, UC Davis

**BENNIE I. OSBURN** 



MICHELE JAY-RUSSELL
DVM, MPVM, PHD, DIPL. ACVPM
Program Manager, Western
Center for Food Safety



## **CONFERENCE DESIGN AND COORDINATION**





**DAVID GOLDENBERG**Food Safety and Security
Training Coordinator



CHRIS BRUNNER
Communications and
International Programs
Director



**HEATHER JOHNSON**MS
Instructional Systems Designer



MS
Education Specialist and International Programs
Coordinator



**SARA GARCIA**PHD
Project Scientist



MA
E-Learning Curriculum
Designer



**RICHARD THOMPSON**Graphic Designer & Web Developer



## **OVERVIEW**

ABOUT THE CONFERENCE

C Davis-WIFSS One Health Conferences provide an in-depth educational experience for undergraduate 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. Our One Health for food systems conferences motivate talented international students to address important societal problems in veterinary, food systems, animal, agriculture, and engineering sciences. By using innovative, interactive, and student-centered learning experiences students learn the value of taking an interdisciplinary approach to solving complex realworld problems through problem-based learning activities which develop critical thinking skills, problem-solving abilities, and communication skills. This One Health approach to solving problems is critical in promoting progress towards safer, better quality food systems and healthy animals and people around the world.



## **ONE HEALTH COURSES**

- **Agricultural Engineering**
- One Health
- **Graduate Application**
- **Animal Science**

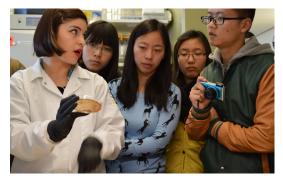
- **Food Science and Technology**
- **Agriculture and Environmental** Science
- **Epidemiology**



## **FEATURES**

- All-star faculty at UC Davis
- Study abroad consultation
- Multicultural participant
- Multidisciplinary







#### **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.



#### **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.



#### **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**

PhD, Michigan State University, Michigan

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

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



#### **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.



**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.



## **AFFILIATES**



CATHERINE BRINKLEY
MS, VMD, PhD
Assistant Professor
Community & Regional Development
Department of Human Ecology,
University of California Davis



**RONALD F. BOND**Water Quality Researcher, Field
Coordinator



RICHARD PEREIRA
PHD
Assistant Professor, Population Health
& Reproduction



**TERRY W. LEHENBAUER**DVM, MPVM, PhD
Professor, Population Health &
Reproduction



PHD
Associate Professor, AES (20%),
School of Veterinary Medicine



MAURICE PITESKY

DVM, MPVM, Dipl, ACVPM

Assistant specialist, School of Veterinary

Medicine-Cooperative Extension



ROBERT POPPENGA

DVM, PhD, DABVT

Professor, California Animal Health
and Food Safety Lab, Molecular
Biosciences



XIANG (CRYSTAL) YANG
MS, PHD
Assistant Professor and Meat Scientist
in Department of Animal Science

## **UCDAVIS**

## **CORE OBJECTIVES**

ur conference is based on problem-based learning. Lectures, team-building exercises and field trips have been the cornerstone of our One Health Conference since 2015. The three-fold mission of our conference is to: raise awareness, encourage team building, and bring about change through calls to action.

We welcome students who participate in this online conference to come to a conference on the UC Davis campus when it is safe to travel.





## RAISE AWARENESS

Awareness of the concept of One Health makes it clear that this multidisciplinary approach is essential to solving serious foodborne illness and security problems affecting the world's population.



## **TEAM BUILDING**

Team building is encouraged during the conferences through collaborative group projects where problem-solving skills are put to the test.



## CALL TO ACTION

Students are challenged to consider something they can do to help improve food safety, animal health or environmental problem which they identify in group discussions.









## **APPLICATION TO GRADUATE SCHOOL**

articipation in the One Health Conference will increase your chances of getting into the university of your choice!

The conference includes:

- U.S. Graduate School application workshop led by Director of DVM/PhD scholarship program
- Networking sessions with current graduate students at UC Davis
- Workshops on GRE/TOEFL requirement and preparing application materials
- Exceptional students can request a letter of recommendation from the conference founder, Dr. Bennie Osburn











## **SUCCESS STORIES**

BEYOND THE CONFERENCE

he One Health Conference has been a life-changing experience for many who have attended. Several past participants have gone on to continue their education and further their understanding of One Health at premiere universities around the world!



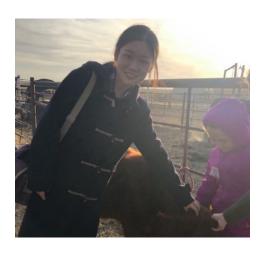
#### **LU TAOTAO**

- MPVM (Master of Preventive Veterinary Medicine)
- School of Veterinary Medicine UC Davis
- One Health Conference 2018



#### **LU YANAN**

- Master of Viticulture College of Agriculture and Life Sciences Cornell University
- One Health Conference 2018



#### **PENG JINGWEN**

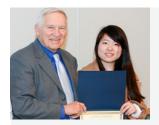
- DVM (Doctor of Veterinary Medicine)
- · School of Veterinary Medicine KSU
- One Health Conference 2016

## **TESTIMONIALS**



"Through this conference, I learned teamwork was quite indispensable."

- PEI TONGTONG



"In Davis, I saw the other way of teaching that is very different from the way of China, which is more like great communication between students, there is no right or wrong but" Good question." It's the new ability I learned in Davis that smiling to everything."

- XU JIEV



"If we can't ensure the safety of our food, then what else can we promise? I hope to see a world with safer food through our efforts."

- CHEN HAO



"The program made me love science and scientific research. I want to use my power to create a better world."

- XU YIFWEN





## **UCDAVIS**





## **EXPERIENCE UC DAVIS**























## **APPLICATION**

## **Fees & Expenses**

Program Fee: \$2000

For students who have gotten a recommendation from their college

Scholarships can be up to \$600

## **Application Time**

**15 June 2020**Online application start

**12 July 2020** Application deadline

**20 July 2020**One Health Conference Begins

## **Requirements**

Minimum GPA: 2.8 (4.0)

English:

CET-4: 470 and above CET-6: 430 and above IELTS: 6.0 and above TOEFL: 80 and above

If you do not meet one of the English requirements above, you can also attend an English interview with WIFSS to also be considered.

## **Suggested Majors**

**Veterinary Medicine** 

Animal Science

**Food Science** 

Agriculture

Engineering

Public Health

**Social Sciences** 

**Economics** 

## **REGISTRATION**

For more information or to register for this conference, please visit: http://www.wifss.ucdavis.edu/onehealthconference/

Scan One Health Conference official WeChat account QR code to connect with us. WeChat customer service account: onehealthyouth





## **PROGRAM COORDINATORS**



#### **CHRIS BRUNNER**

#### COMMUNICATIONS AND INTERNATIONAL PROGRAMS DIRECTOR

Chris Brunner is liaison for WIFSS international programs and manages communications and marketing for WIFSS. She serves as the connection between WIFSS and two major Chinese programs involving hundreds of graduate and undergraduate students, and vocational college faculty. She plays an important public relations role in the consortium linking WIFSS, Nanjing Agricultural University, Massey University in New Zealand, and Wageningen University and Research, The Netherlands. In her role as a leader in communications and marketing over the last 6 years, she helped advance the development of a new Website. She writes blogs for Breaking News, and the Newsletter, and actively promotes news about WIFSS research and programs on social media. She has been instrumental for WIFSS's programs receiving notoriety locally as well as internationally.



cmbrunner@ucdavis.edu



#### **MICHAEL LUO**

MS

EDUCATION SPECIALIST AND INTERNATIONAL PROGRAMS COORDINATOR

Michael Luo is affiliated with UC Davis Western Institute for Food Safety and Security. He has 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.

With an M.S. in Agriculture Extension Mr. Luo shares concepts on agricultural extension education with students attending the One Health conferences. In his career with WIFSS, Mr. Luo promotes the One Health concept on a global basis.



mikluo@ucdavis.edu



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