# **Integrating One Health for Agriculture and Veterinary Sciences**

University of California, Davis August 5 - 13, 2019

Sponsored by: Jiangsu Agri-animal Husbandry Vocational College

Hosted by: University of California, Davis Western Institute for Food Safety and Security









## **Conference Description**

The Integrating One Health for Agriculture and Veterinary Sciences conference, August 5 - 13, 2019, is hosted and coordinated by the Western Institute for Food Safety and Security, (WIFSS), and sponsored by Jiangsu Agri-animal Husbandry Vocational College. Lectures will be held on the campus of the University of California, Davis.

The conference raises awareness of a comprehensive One Health approach to food safety through education, management, and application of technical services. Eighteen faculty from Jiangsu Agri-animal Husbandry Vocational College will participate in conference.

Through classroom lectures presented by UC Davis faculty including professors from the School of Veterinary Medicine and the College of Agricultural and Environmental Sciences, and through field trips offering hands-on learning experiences, participants will learn about the complex problems that arise at the interface of animals, humans and the environment. Participants can hear from educational experts at WIFSS on teaching methods and innovative lesson ideas used here at UC Davis that can be used to enhance teaching and learning at their home institutions in China. Faculty from vocational colleges throughout China will be the leaders in promoting food safety from the farm to the table in China. This novel approach to food safety integrates One Health concepts into teaching methods, based in part on problem-based learning. Through our conferences faculty are equipped to provide students with a better understanding of the connections in the food system between the environment, animals and people, and nurture their awareness of the importance of multi-disciplinary teams addressing food safety problems. Students will be able to trace the source of contamination which can help prevent or eliminate future foodborne illness outbreaks.

Special thanks to our speakers and team facilitators, and special thanks to the many people who gave so generously of their time to help this be a successful conference, including:

- Chris Brunner, Conference Coordinator, WIFSS
- Jenny Chen, Conference Assistant, WIFSS
- James Cullor, Professor Emeritus, School of Veterinary Medicine
- Megan Dietz, MPH, DVM Candidate, Class of 2022
- Sara Garcia, Project Scientist, WIFSS
- David Goldenberg, Food Safety and Security Training Coordinator, WIFSS
- Heather Johnson, Instructional Systems Designer, WIFSS
- Nicole Nisson, Program and Financial Assistant, WIFSS
- Bennie Osburn, Director of Outreach and Training, WIFSS
- Carol Wang, Coordinator One Health Youth

WEEK ONE					
SUNDAY – AUGUST 4 – Arrival					
1:00 pm	Davis Campus	Arrive Tercero Campus Housing,	Parking Lot #48		
MONDAY -	AUGUST 5 –	Welcome			
9:00 – 9:15	212 Veihmeyer		<b>Dr. Bennie Osburn</b> , Director, Outreach & Training, Western Institute for Food Safety and Security, and Dean Emeritus School of Veterinary Medicine		
9:15 – 9:45	212 Veihmeyer	Puzzle Activity Ice Breaker	<i>Heather Johnson</i> , Instructional Systems Designer, and <i>Dr. Sara Garcia</i> , Project Scientist, Western Institute for Food Safety and Security (WIFSS)		
9:45 – 10:00	212 Veihmeyer	Conference Schedule Overview and Learning Objectives and Opening Survey	<i>Heather Johnson</i> , Instructional Systems Designer, WIFSS		
10:00 – 10:15		BREAK			
10:15 – 11:15	212 Veihmeyer	Overview of One Health and Extension's Role in Food Safety and Security	<b>Dr. Bennie Osburn</b> , Director Outreach & Training, WIFSS		
11:30 – 1:30	Segundo	LUNCH			
2:00 – 3:00	212 Veihmeyer	Discussion 1: Meet Your Team	Team Facilitators <i>Heather Johnson</i> , Instructional Systems Designer, <i>Dr. Sara Garcia</i> , Project Scientist, WIFSS; and <i>Dr. James Cullor</i> , Prof Emeritus, School of Veterinary Medicine, UC Davis, and WIFSS Affiliate		
TUESDAY -	AUGUST 6				
9:00 – 11:00		21st Century Teaching and Learning	<i>Mr. Eric Hauck</i> , Science Instructional Coach, Turlock Unified School District;		
			and <i>Heather Johnson</i> , WIFSS		
11:00 – 12:00		<b>Discussion 2</b> : Reflection on Teaching Methods			
12:00 – 2:00	Segundo	Methods LUNCH	and <b>Heather Johnson</b> , WIFSS Team Facilitators: <b>Heather Johnson</b> , <b>Dr</b> . <b>Sara Garcia</b> , and <b>Dr</b> . <b>James Cullor</b>		
12:00 – 2:00 2:00 – 3:00	212 Veihmeyer	Methods LUNCH Discussion 2: Reflection on Teaching Methods - Continuation	and <i>Heather Johnson</i> , WIFSS  Team Facilitators: <i>Heather Johnson, Dr.</i>		
12:00 – 2:00 2:00 – 3:00 WEDNESDA	212 Veihmeyer  Y – AUGUST	Methods LUNCH Discussion 2: Reflection on Teaching Methods - Continuation 7	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30	212 Veihmeyer	Methods LUNCH Discussion 2: Reflection on Teaching Methods - Continuation  7 African Swine Fever Overview	and <i>Heather Johnson</i> , WIFSS  Team Facilitators: <i>Heather Johnson, Dr. Sara Garcia</i> , and <i>Dr. James Cullor</i> Team Facilitators: <i>Heather Johnson, Dr.</i>		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30	212 Veihmeyer  AY — AUGUST  212 Veihmeyer	Methods LUNCH Discussion 2: Reflection on Teaching Methods - Continuation  African Swine Fever Overview  BREAK	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS  Dr. Bennie Osburn, Director Outreach & Training, WIFSS		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30 9:30 – 9:45 9:45 – 12:00	212 Veihmeyer  Y — AUGUST  212 Veihmeyer  212 Veihmeyer	Methods LUNCH  Discussion 2: Reflection on Teaching Methods - Continuation  7  African Swine Fever Overview  BREAK  Panel Discussion: What's Needed in China Based on Gaps	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS  Dr. Bennie Osburn, Director Outreach &		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30 9:30 – 9:45 9:45 – 12:00	212 Veihmeyer  Y — AUGUST  212 Veihmeyer  212 Veihmeyer  212 Veihmeyer	Methods LUNCH  Discussion 2: Reflection on Teaching Methods - Continuation  7  African Swine Fever Overview  BREAK Panel Discussion: What's Needed in China Based on Gaps  LUNCH	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS  Dr. Bennie Osburn, Director Outreach & Training, WIFSS  Dr. Yitong Huang, MPVM, UC Davis Dr. Kathleen O'Hara, PhD Graduate Student Researcher in Epidemiology Megan Amelia Dietz, MPH, DVM Candidate, Class of 2022 Dr. Bennie Osburn, Director Outreach & Training, WIFSS		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30 9:30 – 9:45 9:45 – 12:00 12:00 – 2:00 2:30 – 3:30	212 Veihmeyer  Y — AUGUST  212 Veihmeyer  212 Veihmeyer  Segundo  212 Veihmeyer	Methods LUNCH  Discussion 2: Reflection on Teaching Methods - Continuation  7  African Swine Fever Overview  BREAK  Panel Discussion: What's Needed in China Based on Gaps  LUNCH  Discussion 3: Reflection on One Health	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS  Dr. Bennie Osburn, Director Outreach & Training, WIFSS  Dr. Yitong Huang, MPVM, UC Davis Dr. Kathleen O'Hara, PhD Graduate Student Researcher in Epidemiology Megan Amelia Dietz, MPH, DVM Candidate, Class of 2022  Dr. Bennie Osburn, Director Outreach &		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30 9:30 – 9:45 9:45 – 12:00 12:00 – 2:00 2:30 – 3:30 THURSDAY	212 Veihmeyer  Y — AUGUST  212 Veihmeyer  212 Veihmeyer  Segundo  212 Veihmeyer  — AUGUST 8	Methods LUNCH  Discussion 2: Reflection on Teaching Methods - Continuation  7  African Swine Fever Overview  BREAK  Panel Discussion: What's Needed in China Based on Gaps  LUNCH  Discussion 3: Reflection on One Health  Field Trip	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS  Dr. Bennie Osburn, Director Outreach & Training, WIFSS  Dr. Yitong Huang, MPVM, UC Davis Dr. Kathleen O'Hara, PhD Graduate Student Researcher in Epidemiology Megan Amelia Dietz, MPH, DVM Candidate, Class of 2022  Dr. Bennie Osburn, Director Outreach & Training, WIFSS  Team Facilitators: Heather Johnson and Dr. Sara Garcia, and Dr. James Cullor		
12:00 – 2:00 2:00 – 3:00 WEDNESDA 9:00 – 9:30 9:30 – 9:45 9:45 – 12:00 12:00 – 2:00 2:30 – 3:30	212 Veihmeyer  Y — AUGUST  212 Veihmeyer  212 Veihmeyer  Segundo  212 Veihmeyer	Methods LUNCH  Discussion 2: Reflection on Teaching Methods - Continuation  7  African Swine Fever Overview  BREAK  Panel Discussion: What's Needed in China Based on Gaps  LUNCH  Discussion 3: Reflection on One Health	and Heather Johnson, WIFSS  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor  Team Facilitators: Heather Johnson, Dr. Sara Garcia, and Dr. James Cullor, WIFSS  Dr. Bennie Osburn, Director Outreach & Training, WIFSS  Dr. Yitong Huang, MPVM, UC Davis Dr. Kathleen O'Hara, PhD Graduate Student Researcher in Epidemiology Megan Amelia Dietz, MPH, DVM Candidate, Class of 2022  Dr. Bennie Osburn, Director Outreach & Training, WIFSS  Team Facilitators: Heather Johnson and		

10:30	Chico	Arrive University Farm, California State University, Chico	University Farm CSU, Chico Agricultural Teaching and Research Center 311 Nicholas C Schouten Lane Chico, CA 95928	
10:45 – 12:00		Overview of CSU Chico College of Agriculture Curriculum and Building Academic/Private Industry Partnerships in Education	<b>Dr. David A. Daley</b> , Administrator, Agricultural Teaching and Research Center, University Farm, CSU Chico	
12:00		Bus Departs University Farm		
12:15	Chico	Arrive Sierra Nevada Brewery	1075 East 20th Street Chico, CA95928United States (530) 345-2739	
12:15 – 2:15	Chico	Lunch and Group Tours	Sierra Nevada Brewery	
2:30		Board Bus		
4:30	Davis	Drop Off UC Davis Campus	Rear of Activities & Recreation Center	
FRIDAY - A	UGUST 9 - C	ompanion Animal		
9:15	Welcome	Arrive UC Davis Welcome Center		
	Center			
9:30 – 10:30		Tour of UC Davis Campus		
10:30 – 11:45		Free Time		
12:00 – 1:00	1043 Valley	Overview of Nutrition Service, Veterinary Medical Teaching Hospital	<b>Dr. Andrea Fascetti</b> , School of Veterinary Medicine, Dept of Molecular Biosciences	
1:00		DISMISSED		
		WEEK TWO		
MONDAY	ALICHIST 12	- Project Preparation		
9:00 – 10:00	212 Veihmeyer	Dairy Dynamic Management	<i>Dr. James Cullor</i> , Professor Emeritus, Department of Population, Health and Reproduction, School of Veterinary	
	_		Medicine	
10:00 – 11:00	212 Veihmeyer	<b>Discussion 4:</b> Preparing for the Final Presentation	<b>David Goldenberg</b> , Food Safety and Security Training Coordinator, WIFSS, and <b>Dr. James Cullor</b>	
11:00 – 11:15		BREAK		
11:15 – 12:00	212 Veihmeyer	Common Dermatological Diseases in Companion Animals	Catherine Outerbridge, Department of Medicine and Epidemiology, School of Veterinary Medicine	
12:00 – 2:00	Segundo	LUNCH		
2:00 – 3:00	Optional	Individual Teams Work on Presentations	Group Time	
TUESDAY -	AUGUST 13 -	- Final Day		
9:00 – 9:30	212 Veihmeyer	Summary of Conference Experiences	<b>Dr. Bennie Osburn,</b> Director Outreach & Training, WIFSS	
9:30 - 9:50		Group One Presentation	Dr. James Cullor, SVM	
9:50 – 10:10		Group Two Presentation	Dr. James Cullor, SVM	
10:10 – 10:25		BREAK		
10:25 – 10:45		Group Three Presentation	Dr. James Cullor, SVM	
10:45 – 11:00		BREAK and Group Photo		
11:00 – 11:30		Certificate Ceremony	Dr. Bennie Osburn	
11:30 – 1:00		Lunch Celebration	Catered by Woodstocks Pizza	
1:00 p.m.		Conference Completed		
CONGRATULATIONS!				
WEDNESDAY – AUG 14 – DEPART CAMPUS				



#### James Cullor

Dr. Jim Cullor, a professor emeritus in the Department of Population, Health and Reproduction at the School of Veterinary Medicine, 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.



### **David Daley**

Dr. David A. Daley is Farm Administrator for the California State University Chico College of Agriculture's University Farm currently. Dr. Daley's research interests have focused primarily on the application of technology to the cattle industry, coupled with a strong emphasis on utilization of alternative feedstuffs. The research component with Sierra Nevada has been the involvement and education of undergraduates at the University Farm as a result of this research.



## Megan Dietz

Megan Dietz (BS, MPH, DVM(c)) is currently at the UC Davis pursuing her Doctor in Veterinary Medicine. She serves as the Director of Livestock Health for the Institute of Global Agricultural Technology Transfer. Megan has researched adapting smallholder livestock systems to climate change in Southeast Asia and Sub-Saharan Africa; antimicrobial resistance detection across human, environmental, and animal sources; and determining best practices for improving farm welfare, profitability, and productivity. Megan currently focuses on finding joint solutions to animal welfare and worker health and safety in the livestock industry.



#### Andrea Fascetti

Dr. Andrea Fascetti, Professor in the Department of Molecular Biosciences in the School of Veterinary Medicine is faculty with the Nutrition Service at the Veterinary Medical Teaching Hospital at UC Davis. Dr. Fascetti is a world expert in veterinary nutrition and specifically taurine studies. Her research interests are in companion animal nutrition, trace mineral and amino acid metabolism, feline and canine nutrient requirements, obesity, improvement of pet foods, the role of clinical nutrition in the management and prevention of disease.



#### Sara Garcia

Dr. Sara Garcia is a Project Scientist with WIFSS and earned her B.S. in Genetics and Ph.D. in Integrative Pathobiology at UC Davis. She has expertise in food safety, microbiology and molecular genetics and has worked domestically and internationally in these fields. 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 to enhance the health of humans, animals and the ecosystem.



### David Goldenberg

Mr. David Goldenberg is Food Safety and Security Training Coordinator with the Western Institute for Food Safety and Security. He contributes to food safety projects for the US Food and Drug Administration (FDA) Integrated Food Safety System (IFSS). He is involved in the produce investigations course and is working on integrating video and tabletop exercises to enhance adult learning principles.



#### Eric Hauck

Mr. Eric Hauck is a science instructional coach for the Turlock Unified School District, serves as an adjunct professor of science teaching methods for California State University Stanislaus, and serves on a variety of panels to help write the new California Science Test (CAST). He graduated from UC Davis with a B.S. in Entomology, an M.S. in Medical Entomology, and a single subject teaching credential. He has dedicated his career to helping both students and teachers find a love for the sciences. Eric specializes in the newest shifts occurring in science education called The Next Generation Science Standards (NGSS).



## Yitong Huang

Yitong Huang graduated from Nanjing Agricultural University in China with a bachelor's degree of Veterinary Medicine in 2017 and master of preventive veterinary medicine (MPVM) degree from the University of California, Davis (2019). She is interested in infectious disease epidemiology of swine. Her MPVM research focuses on the risk assessment of African Swine Fever potential introduction into China through prohibited pork and pork product carried by air passengers, aiming to prioritize and improve surveillance and border inspection controls and to reduce risk practices of flight passengers.



#### Heather Johnson

Ms. Heather Johnson is Acting Instructional Systems Designer and Educational Specialist at WIFSS. She 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.



#### Kathleen O'Hara

Dr. Kathleen O'Hara, a Doctor of Veterinary Medicine, is currently a PhD graduate student researcher with the Center for Animal Disease Modeling and Surveillance at UC Davis School of Veterinary Medicine. She attained her Master of Preventive Veterinary Medicine (MPVM) from UC Davis. Her master's work entailed a network analysis of a large-scale swine production system in China, and the use of ERGM to simulate disease outbreaks and to better inform economically efficient surveillance and mitigation strategies. Her PhD thesis work aims to understand the pig contact networks and the socioeconomic factors contributing to the emergence, maintenance, and spread ASF in Africa.



#### Bennie Osburn

Dr. Bennie Osburn is Director of Outreach and Training at the Western Institute for Food Safety and Security. He is Dean Emeritus of the School of Veterinary Medicine, UC, Davis. Dr. Osburn's research has focused on infectious diseases of livestock, zoonotic diseases, including foodborne pathogens, and the ecology of infectious agents. He is interested in applying a One Health approach to food safety.



## Catherine Outerbridge

Dr. Catherine Outerbridge is Assistant Professor of Clinical Dermatology in the Department of Medicine and Epidemiology at UC Davis, School of Veterinary Medicine. Dr. Outerbridge's professional interests include all aspects of clinical dermatology, with an interest in cutaneous manifestations of systemic disease as well as infectious and metabolic skin diseases. She is a Diplomate of the American College of Veterinary Dermatology.

## Staff Support



Chris Brunner
Communications and
International Programs
Coordinator



Jenny Chen Public Relations Assistant, WIFSS



Nicole Nisson Program and Financial Assistant, WIFSS