

Integrating Veterinary Medicine, Animal Science, and Agricultural Engineering through One Health

University of California, Davis
August 13 – 31, 2018

Sponsored by:
Nanjing Agricultural University

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



WIFSS
Western Institute for
Food Safety & Security



UC DAVIS
VETERINARY MEDICINE



UC DAVIS
COLLEGE of AGRICULTURAL
AND ENVIRONMENTAL SCIENCES

Conference Description

The Integrating Veterinary Medicine, Animal Science, and Agricultural Engineering through One Health, held at the University of California, Davis, August 13 – 31, 2018, is hosted by the Western Institute for Food Safety and Security, (WIFSS). The conference provides an in-depth educational experience for undergraduate students from Nanjing Agricultural University to learn about the importance of applying a One Health approach to solving problems concerning food safety and security, and animal health. The comprehensive program which includes lectures, field trips, and team-building exercises raises the students' awareness for taking a multidisciplinary approach to solving problems. This approach prepares them for careers which will promote progress towards safer, better quality food systems and healthy animals in China.

The conferences build the foundation for the establishment of a One Health Center for Food Safety and Animal Health at NAU. Research and education programs at the Center will focus on understanding and dissemination of information for food safety, water quality and animal health. NAU students, practiced in teamwork, will be the future teachers and researchers at the Center.

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
- Sara Garcia, Project Scientists, WIFSS
- David Goldenberg, Food Safety and Security Training Coordinator, WIFSS
- Heather Johnson, Educational Specialist, WIFSS
- Michael Luo, Nanjing Wheat Leaf Educational Technology, Ltd.
- Nicole Nisson, Program and Financial Assistant, WIFSS
- Bennie Osburn, Director of Outreach and Training, WIFSS

WEEK ONE

SUNDAY – AUGUST 12

4:00 pm	WIFSS	Arrive WIFSS, Meet Host Families	1477 Drew Ave, Suite 101, Davis, CA
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MONDAY – AUGUST 13

9:00 – 10:00	1041 Valley	Welcome and Conference Overview, and Puzzle Activity Ice Breaker	Dr. Bennie Osburn, Director, Outreach & Training, Western Institute for Food Safety and Security, Dean Emeritus School of Veterinary Medicine
10:00 – 10:15		BREAK	
10:15 – 10:30	1041 Valley	Conference Learning Objectives	Heather Johnson, Instructional Systems Designer, Western Institute for Food Safety and Security
10:30 – 11:00		Opening Survey	Michael Luo, CEO, Nanjing Wheat Leaf Educational Technology Co., Ltd.
11:00 – 12:00	1041 Valley	Introduction to Davis	Gregory Wsaliuk, E-Learning Curriculum Designer, Western Institute for Food Safety and Security
12:00 – 1:30		LUNCH	
1:30 – 2:30	1041 Valley	History of California	Kelly Nimtz, Director Emeritus for Development, School of Veterinary Medicine

TUESDAY – AUGUST 14

9:00 – 9:45	1041 Valley	Principles of One Health Approaches to Poultry Production	Dr. Maurice Pitesky, UC Cooperative Extension Specialist, Department of Population Health and Reproduction, School of Veterinary Medicine
10:00		Board Vans	
10:00 – 10:30	Hutchison	UC Davis Pastured Poultry Farm	Hutchison Drive
10:45		Arrive Back Campus	
11:00 – 12:00	1041 Valley	One Health Overview and Learning Activity	Dr. Bennie Osburn, WIFSS
12:00 – 1:30		LUNCH	
1:30 – 2:00	1041 Valley	The Power of One	Chris Brunner, Public Relations Officer, WIFSS
2:00 – 3:00	1041 Valley	Communicating One Health Interactive Session	Heather Johnson, Instruction Systems Designer, Sara Garcia, Project Scientist, and Emily Kunz, Graphic Designer & Web Designer, WIFSS

WEDNESDAY – AUGUST 15

9:00 – 9:20	1041 Valley	Team Assignments and Discussion #1: Getting to Know Each Other	Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo
9:20 – 9:40	1041 Valley	Hazard Analysis Critical Control Points (HACCP) Overviews	David Goldenberg, Food Safety and Security Training Coordinator, WIFSS
9:40 – 12:00	1041 Valley	Good Guys vs. Bad Bugs Activity	Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo
12:00 – 1:30		LUNCH	

1:30 – 2:30	1041 Valley	Combined Farming Operations and the Role of a Cooperative Extension Specialists	<i>Dr. Erin DiCaprio, Assistant Specialist in Cooperative Extension, Department of Food Science and Technology</i>
THURSDAY – AUGUST 16			
9:00 – 9:50	1041 Valley	Discussion on Metals That Pollute Our Environment and Adversely Affect Human and Animal Health	<i>Dr. Robert Poppenga, Professor, California Animal Health and Food Safety Laboratory System</i>
9:50 – 10:00		BREAK	
10:00 – 10:50	1041 Valley	The Impact of Air Pollution on Animal and Human Health	<i>Dr. Anthony S. Wexler, Distinguished Professor, Mechanical and Aerospace Engineering</i>
11:00 – 12:00	1041 Valley	Precision Agriculture	<i>Dr. Shrinivasa Upadhyaya, Department of Biological and Agricultural Engineering</i>
12:00 – 1:00		LUNCH	
1:00 – 2:00	1041 Valley	Make, Take and Share Better Presentation	<i>Emily Kunz, Graphic Designer & Web Developer, Gregory Wlasiuk, E-Learning Curriculum Designer, WIFSS</i>
2:00 – 3:00	1041 Valley	Interactive Session: Improving Scientific Communication	<i>Emily Kunz, Gregory Wlasiuk, Heather Johnson, Sara Garcia</i>
2:20 – 3:30	2045 Bainer	ENGINEERING STUDENTS ONLY: Tour of Engineering Lab	<i>Yishuo Chen, PhD candidate in Biological Agricultural Engineering</i>
FRIDAY – AUGUST 17			
9:00 – 10:00	1041 Valley	Overview of Dairy Herd Health	<i>Dr. Richard Pereira, Assistant Professor of Clinical Livestock Herd Health, School of Veterinary Medicine</i>
10:00 – 12:00	1041, 1023, 2010, 2013 Valley	Discussion #2	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo</i>
12:00		Adjourn	

WEEK TWO

MONDAY – AUGUST 20

8:00	Campus	Depart Campus	Visitor Parking Lot 51
10:00 – 11:30	Hilmar	Tour Dairy – View Rotary System	23160 Williams Ave, Hilmar
11:30 – 12:30	Stevinson	Tour Dairy – View Robotic System	19276 6 th Ave, Stevinsosn CA 95374
12:30 – 1:30	Los Banos	LUNCH	1500 W Pacheco Blvd, Los Banos, 93635
4:00	Salinas	Best Western Plus Salinas Valley Inn & Suites	187 Kern St, Salinas, CA 93905, (831) 751-6411
6:00	Salinas	DINNER	Location to be Determined

TUESDAY – AUGUST 21

8:30	Salinas	Board Bus	
9:00 – 10:30	Gonzales	Metzer Farm	26000 Old Stage Road, Gonzales, CA 93926
12:00 – 1:00	Santa Cruz	LUNCH Catered	Coastal Biology Building CCB, 130 McAllister Way, Santa Cruz, CA 95060
1:00 – 2:00	Santa Cruz	Utilizing Population Genetics to Manage Ocean Fisheries	Dr. John Carlos Garza, Molecular Ecology Team Leader, Southwest Fisheries Science Center, NOAA
2:30	Santa Cruz	Visit Outdoor Whale	Seymour Marine Discovery Center
3:00 – 8:00	Santa Cruz	Santa Cruz Board Walk	On Your Own for Dinner
9:00	Salinas	Return to Hotel in Salinas	

WEDNESDAY – AUGUST 22

8:30	Salinas	Checkout of Hotel, Board Bus	Best Western
11:00 – 12:00	San Francisco	Golden Gate Bridge	
12:30 – 1:30	Mill Valley	LUNCH	In-N-Out Burger, 798 Redwood Hwy Frontage Rd, Mill Valley, CA 94941 (800) 786-1000
1:30 – 3:00	San Rafael	Pet Emergency & Specialty Center of Marin	901 East Francisco Blvd., San Rafael, CA 94901 (P) 415-456-7372
4:00	Santa Rosa	Check into Flamingo Resort and Spa	2777 4th St, Santa Rosa, CA 95405, (707) 545-8530
6:00	Santa Rosa	Tour Local Farmers Market	Dinner on Your Own

THURSDAY – AUGUST 23

8:00 – 10:00	Santa Rosa	Group Meeting – ALL- Connect the Dots	Garden Room
10:30	Santa Rosa	Check out of Hotel - Board Bus	
11:00 – 12:00	Cotati	Cotati Large Animal Clinic, Dr. Gene Harlan	8079 Gravenstein Hwy, Cotati, CA 94931, (707) 795-4356
12:30 – 1:30	Petaluma	LUNCH	Location to be Determined
4:30	Davis	Arrive Campus	

FRIDAY – AUGUST 24

9:00 – 10:30	Campus	Campus Tour	UC Davis Welcome Center / Wheat Leaf
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WEEK THREE

MONDAY – AUGUST 27

9:00 – 11:30	1041, 1047 Valley	Discussion #3: Preparing for Final Presentation	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo, Jin Wang</i>
11:30 – 1:00	1041 Valley	LUNCH	
1:15 – 2:30	1041 Valley	An Overview of Research Programs in Animal Science	<i>Dr. James Murray, Chair, Department of Animal Science</i>
2:30 – 4:00	VMTH	Tours of Veterinary Medical Teaching Hospital	<i>Samantha Cheng (Class of 2021) Jordan Denitz (Class of 2021) Bradley Whelchel (Class of 2021)</i>

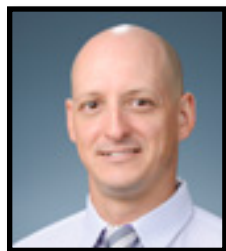
TUESDAY – AUGUST 28

9:00 – 9:50	1041 Valley	An Overview of Community Practice at UC Davis	<i>Dr. Blythe Jurewicz, Chief of Service for Community Practice, UC Davis, William R. Pritchard Veterinary Medical Teaching Hospital</i>
9:50 – 10:00		BREAK	
10:00 – 10:50	1041 Valley	Integrative Medicine Service at UC Davis	<i>Dr. Jamie Peyton, Chief of the Small Animal Integrative Medicine Service, William R. Pritchard Veterinary Medical Teaching Hospital</i>
10:50 – 11:00		BREAK	
11:00 – 11:50	1041 Valley	Regenerative Approach to Mandibular Reconstruction in Dogs	<i>Dr. Boaz Arzi, Dentistry and Oral Surgery Service, School of Veterinary Medicine</i>
12:00 – 1:30		LUNCH	
1:30 – 3:00	1041, 1011, 2011, 2013 Valley	Work on Team Projects	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo</i>

WEDNESDAY – AUGUST 29

9:00 – 9:50	1041 Valley	Graduate Education at UC Davis and in USA	<i>Dr. Xinbin Chen, Professor and Researcher, Department Surgical and Radiological Sciences, School of Veterinary Medicine</i>
9:50 – 10:00		BREAK	
10:00 – 10:50	1041 Valley	One Health: The Dog as a Model of Human Cancer Research	<i>Dr. Michael S. Kent, Director, Center for Companion Animal Health, Professor, Surgical and Radiological Sciences, School of Veterinary Medicine</i>
10:50 – 11:00		BREAK	
11:00 – 11:50	1041 Valley	Panel Discussion	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo</i>
12:00 – 1:30		LUNCH	
1:30 – 3:00	1041, 1011, 1013, 2013 Valley	Team Work on Projects	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo</i>

THURSDAY – AUGUST 30			
8:30 – 12:00	1041 Valley	Jeopardy Game	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo, Jin Wang</i>
12:00 – 1:30		LUNCH	
1:30 – 3:00	1041, 1043 Valley	Work on Team Projects	<i>Team Facilitators: Bennie Osburn, David Goldenberg, Heather Johnson, Sara Garcia, James Cullor, Michael Luo</i>
FRIDAY – AUGUST 31			
8:30 – 9:00	1041 Valley	Closing Remarks	<i>Dr. Bennie Osburn, Director, Outreach & Training, Western Institute for Food Safety and Security, Dean Emeritus School of Veterinary Medicine</i>
9:00 – 9:30	1041 Valley	Davis Thanos	<i>Bennie Osburn, Team Facilitator</i>
9:30 – 10:00	1041 Valley	Golden Babes	<i>David Goldenberg, Team Facilitator</i>
10:00 – 10:15		BREAK	
10:15 – 10:45	1041 Valley	Cube on Fire	<i>Heather Johnson, Team Facilitator</i>
10:45 – 11:15	1041 Valley	Gattica	<i>Sara Garcia, Team Facilitator</i>
11:15 – 11:45	1041 Valley	Umbrellasword	<i>James Cullor & Michael Luo, Team Facilitators</i>
11:45 – 12:00	Grassy Knoll	Group Photo	<i>Don Preisler, Photographer, School of Veterinary Medicine</i>
12:00 – 1:00	1041 Valley	Certificate Ceremony	<i>Certificate Presentations by Dr. Bennie Osburn, WIFSS Photography by Don Preisler</i>
1:00 – 2:00	1023 Valley	LUNCH and Video Show	<i>Lunch Catered</i>
CONGRATULATIONS!			
SATURDAY – SEPTEMBER 1			
6:15 am	Campus	Bus Departs for San Francisco International Airport	<i>Visitor Parking Lot 15, California Avenue</i>



Boaz Arzi

Dr. Boaz Arzi is an Associate Professor of Dentistry and Oral surgery at the department of Surgical and Radiological Sciences, School of Veterinary medicine, at UC Davis. His clinical and research focus is on oral maxillofacial disorders and regenerative solutions in dogs and cats. His lab also investigates TMJ disorders and treatments across species. His work is translational with the aim of One Health treatment modalities for both human and animal health.



Chris Brunner

As the Public Relations Officer for the Western Institute for Food Safety and Security Ms. Brunner develops innovative, strategic and appropriately targeted communications to market the institute, as well as managing organizational aspects of One Health conferences and workshops. She interfaces with multiple international university offices for the programmatic activities. Chris is the principal liaison for WIFSS's guidance with international student One Health clubs.



Xinbin Chen

Dr. Xinbin Chen is Professor at UC Davis Schools of Medicine and Veterinary Medicine. He is leader of the Comparative Oncology Program at the two schools. The comparative oncology program has the goal of drawing on key strengths of UC Davis in animal research pertaining to the disease mechanisms that are implicated in the genesis and progression of cancer. His research focuses on the function of the p53 family in tumor suppression, development, and aging.



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.



Erin DiCaprio

Dr. Erin DiCaprio, a Cooperative Extension assistant specialist in the Department of Food Science and Technology, studies microbial food safety with an emphasis in foodborne viruses. Her research focuses on finding the mechanisms by which foodborne viruses contaminate fresh produce during production and processing and which biological and environmental factors influence viral persistence in these foods. Dr. DiCaprio educates food handlers and consumers to increase awareness and minimize risk.



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.



John Carlos Garza

Dr. John Carlos Garza is a research geneticist with the National Oceanic and Atmospheric Administration, NOAA, Southwest Fisheries Science Center, where he serves as the Molecular Ecology Team Leader. He holds an Adjunct Professor position in the Ocean Sciences Department at the University of California, Santa Cruz campus. Dr. Garza uses population and molecular genetic methods to provide biological inference regarding a broad range of questions in ecology, evolution, conservation and management of marine and aquatic species.



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 table top exercises to enhance adult learning principles.



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.



Blythe Jurewicz

Dr. Blythe Jurewicz is Chief of Community Practice at UC Davis Veterinary Medical Teaching Hospital. After graduation, she did a private practice internship, before entering private practice for 7 years. She transitioned to teaching at UCD 6 years ago and enjoys continuing to practice medicine while having the opportunity to train future veterinarians. Dr. Jurewicz is very interested in fear free handling, veterinary dentistry and dermatology, and all things cat!



Michael Kent

Dr. Michael Kent, a professor and researcher in the Department of Surgical and Radiological Sciences, at the UC Davis School of Veterinary Medicine, serves as the director of the Center for Companion Animal Health. He is also co-director of the Comparative Cancer Center, and co-program leader for the UCDMC Comprehensive Cancer Center's Comparative Oncology Program.



Emily Kunz

Ms. Emily Kunz earned her BS in Visual Communications at Brigham Young University-Idaho, and her MFA in Integrated Design from the University of Baltimore. With expertise in print, web, and video, she has worked as an in-house graphic designer, a freelance designer, and an educator for a variety of companies, businesses, and educational institutions.



Michael Luo

Mr. Michael Luo, is CEO of Nanjing Wheat Leaf Educational Technology, Ltd, and Mr.M Language Workshop, and he is President of One Health Youth (China). Mr. Luo facilitates translation and serves as cultural advisor for Western Institute for Food Safety and Security One Health conferences.



James Murray

Dr. James Murray is currently Professor and Chair of the Department of Animal Science and a Professor in the Department of Population Health and Reproduction at the University of California at Davis. His research has focused on the genetic engineering of livestock for use in agriculture, with two principal project focusing on the expression of human lysozyme in the milk, with the objective of developing dairy animals that provide milk with enhanced antimicrobial properties for use in preventing or treating diarrhea in children, and the rapid introgression of polled into cattle using gene editing.



Kelly Nimtz

Mr. Kelly Nimtz is retired from the School of Veterinary Medicine. His responsibilities included fund raising for new veterinary buildings, student scholarships, and faculty endowments. He directed the school's first capital campaign and established the Development Office. Prior to his retirement in 2010, Kelly and his Development Office colleagues assisted with the construction of five new buildings including funds needed to construct a \$20 million Center for Companion Animal Health.



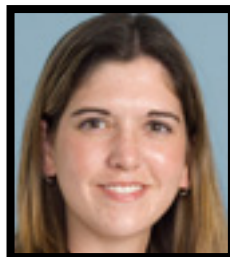
Bennie Osburn

Dr. Bennie Osburn is Director of Outreach and Training at the Western Institute for Food Safety and Security. He is Dean Emertius 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.



Richard Pereira

Dr. Richard Pereira is an Assistant Professor of Clinical Livestock Herd Health at UC Davis, providing in-house and ambulatory veterinary herd health and reproduction services to dairy farm, ranches and breeding operations. His research interest is on antimicrobial resistant and zoonotic bacteria in livestock and herd health, with the aim of developing effective and feasible interventions to reduce and prevent the spread of disease and drug resistance.



Jamie Peyton

Dr. Jamie Peyton is Chief of the Small Animal Integrative Medicine Service at UC Davis Veterinary Medical Teaching Hospital. She is board certified in Emergency and Critical Care, and is a certified veterinary rehabilitation therapist at the Canine Rehabilitation Institute. She is a member of several integrative medicine associations, including the American Academy of Veterinary Acupuncture, the American Association of Traditional Chinese Veterinary Medicine and the International Veterinary Academy of Pain Management.



Maurice Pitesky

Dr. Maurice Pitesky is a UC Cooperative Extension Specialist in the Department of Population Health and Reproduction in the School of Veterinary Medicine. His research focus is on the application of classic and spatial epidemiology in disease surveillance, food safety management, and other processes associated with poultry health, and the interface of science and policy with respect to food safety and public health.



Robert Poppenga

Dr. Robert Poppenga is a veterinary toxicologist and head of the toxicology section of the California Animal Health and Food Safety Laboratory System. He supervises 12 analytical chemists using state of the art analytical platforms and providing toxicology diagnostic serves to California animal owners, producers and state agencies. He has a particular interest in the effects of environmental contaminants on wildlife and chemical food safety.



Shrinivasa Upadhyaya

Dr. Shrinivasa K. Upadhyaya is a Professor in the Department of Biological and Agricultural Engineering, University of California, Davis. He spearheaded advances in research connecting a broad range of physical processes to their interactions with in-field soil, water, plant, and machine systems. The methods involved in his body of research have formed the basis for his active program of graduate and undergraduate teaching. His program includes course creation in biological systems modeling and analysis, precision agriculture and GIS/GPS.



Anthony Wexler

Dr. Anthony Wexler is Director of the Air Quality Research Center at the University of California, Davis, and Distinguished Professor of Mechanical and Aerospace Engineering, Civil and Environmental Engineering, and Land, Air and Water Resources. His research focuses on understanding the atmospheric processes that transport and transform particulate pollutants and their impact on environmental, animal and human health.



Gregory Wsaliuk

Mr. Greg Wsaliuk earned his BA and MA in English from UC Davis. While at Davis he taught undergraduate literature and creative writing courses. After graduate school he learned graphic design, course design, and online learning practices during his two years at UC Davis Extension.



Chris Brunner
Public Relations Officer, WIFSS



Jenny Chen
Public Relations Assistant, WIFSS



Nicole Nisson
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