

One Health for Food Safety Conference

University of California, Davis
June 27 – July 22, 2016

Sponsored by:

Jiangsu Agri-animal Husbandry Vocational College, Xuzhou Vocational College of Bioengineering, Xinjiang Agricultural Vocational Technical College, and Chengdu Agricultural College

Hosted by:

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



Conference Description

The Western Institute for Food Safety and Security hosted the One Health for Food Safety Conference at the University of California, Davis campus for Jiangsu, Xinjiang, Xuzhou, and Chengdu provincial vocational college's faculty who have an interest in the concept of One Health as it relates to food safety and innovative instructional programs developed as part of the NAU/UC Davis One Health Center joint program. The conference, which took place June 27 through July 22, 2016, helped raise awareness of a comprehensive One Health approach to food safety through education, management, and application of technical services.

Through classroom lectures presented by UC Davis faculty, and field trips offering hands-on learning experiences, participants learned about the complex problems that arise at the interface of animals, humans and the environment. 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. 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 to the many people who gave so generously of their time to help this be a successful conference, including:

- Bennie Osburn, Director of Outreach and Training, WIFSS
- Heather Johnson, Instructional Systems Designer, WIFSS
- David Goldenberg, Food Safety and Security Training Coordinator, WIFSS
- Chris Brunner, Conference Coordinator, WIFSS
- Jenny Chen, Conference Staff Support

MONDAY – JUNE 27

1041 Gladys Valley Hall

9:00 – 9:30	Welcome and Overview of Conference Program	<i>Bennie Osburn, Director, Outreach & Training, Western Institute for Food Safety and Security (WIFSS)</i>
10:00 – 11:30	Walking Tour of Campus	
1:30 – 2:30	History of California	<i>Kelly Nimtz, Director Emeritus, Office of Development, School of Veterinary Medicine</i>

TUESDAY – JUNE 28

1041 Gladys Valley Hall

9:00 – 9:45	Overview of WIFSS	<i>Robert Atwill, Director, Western Institute for Food Safety and Security (WIFSS)</i>
10:00 – 10:45	Overview of One Health Center for Food Safety at Nanjing Agricultural University	<i>Bennie Osburn, WIFSS</i>
11:00 – 11:30 1105 VM3B	Overview and Tour of One Health Institute	<i>Matthew Blake, Chief Operating Officer, One Health Institute</i>
11:30 – 12:00 4206 VM3B	Tour of Atwill Water and Foodborne Zoonotic Disease Laboratory	<i>Ronny Bond, Water Quality Researcher, WIFSS</i>
1:30 – 3:00	Group Assignments and Questionnaire	<i>Bennie Osburn, WIFSS</i>

WEDNESDAY – JUNE 29

1041 Gladys Valley Hall

9:30 – 11:00 Bowley Plant Science Teaching Ctr	Overview and Tour of Student Farm	<i>Carol Hillhouse, School Garden Program Director and Ecological Garden Coordinator, UV Davis Student Farm</i>
1:00 – 2:00	Problem Based Learning	<i>Heather Johnson, Instructional Systems Designer, WIFSS</i>
2:15 – 3:30	Group Discussion #1	<i>Heather Johnson, WIFSS David Goldenberg, Food Safety and Security Training Coordinator, WIFSS</i>

THURSDAY – JUNE 30
1041 Gladys Valley Hall

8:30 – 9:30 <i>Harry H. Laidlaw Jr. Honey Bee Research Facility</i>	Overview of Bee Program	<i>Elina Lastro Nino, Department of Entomology and Nematology, UC Davis</i>
9:30 – 10:00 <i>Harry H. Laidlaw Jr. Honey Bee Research Facility</i>	Tour of Bee Research Facility	<i>Charley Nye, Department of Entomology and Nematology, Facility Manager, Harry H. Laidlaw Jr. Honey Been Research Facility</i>
10:00 – 11:00 <i>Häagen-Daz Honey Bee Haven</i>	Tour UC Davis Häagen-Daz Honey Bee Haven	<i>Charley Nye</i>
11:15– 12:00	Overview of the Web of Causation	<i>Amanda Arens, Program Manager, Outreach and Training, WIFSS</i>
1:45 – 3:30	Tour Veterinary Medical Teaching Hospital	<i>Daniela Yuschenkoff, School of Veterinary Medicine, Class of 2018</i>

MONDAY – JULY 4
Independence Day Holiday

WEDNESDAY – JULY 6
1041 Gladys Valley Hall

9:00 – 10:00 <i>Foster Room 1138 Meyer Hall</i>	Overview of Animal Science	<i>Anita Oberbauer, Professor and Department Chair, Department of Animal Science</i>
10:15 – 11:15 <i>Meat Lab Cole C Facility</i>	Tour of Department of Animal Science Meat Laboratory	<i>Dan Sehnert, Department of Animal Science Facility Coordinator</i>
1:00 – 2:00	Overview of Relationship of Animals & Produce	<i>Michele Jay-Russell, Program Manager Western Center for Food Safety and Liaison to WIFSS</i>
2:15 – 3:15	Overview of Relationship of Environment and Animals	<i>Frank Mitloehner, Professor and Air Quality Extension Specialist, Department of Animal Science</i>

THURSDAY – JULY 7
1041 Gladys Valley Hall

9:00 – 9:45	Wicked Problem	<i>Bennie Osburn, Director, Outreach & Training, WIFSS</i>
10:00 – 11:30 <i>Plant Reproductive Biology Facility</i>	Overview and Tour of Department of Plant Sciences Greenhouses	<i>Garry W. Pearson, CAES Lead Greenhouse Manager Department of Plant Sciences</i>
11:45 – 12:15 <i>Mann Laboratory</i>	Postharvest Technology and Food Safety, and Tour Mann Laboratory	<i>Lee Ann Richmond, Facility Manager, Department of Plant Sciences</i>
1:30 – 2:30	St. Patrick's Day Revenge	<i>David Goldenberg, WIFSS</i>
2:45 – 3:45	Group Discussion #2	<i>David Goldenberg, WIFSS Heather Johnson, WIFSS</i>

FRIDAY – JULY 8
1041 Gladys Valley Hall

9:00 – 10:00	Postharvest Food Safety Within the Technology Center	<i>Marita Cantwell, Postharvest Specialist, Department of Plant Sciences</i>
10:15 – 10:45	Instructions for Field Trip	<i>Chris Brunner, WIFSS</i>
11:30 -12:30 <i>RMI Sensory Theater FIL and Pilot Plant</i>	Overview of Robert Mondavi Institute for Wine and Food Science and tour of Institute	<i>Clare Hasler-Lewis, Executive Director, Robert Mondavi Institute for Wine and Food Science</i>

Week Three – Monterey/Tulare

MONDAY – JULY 11

Salinas/Monterey

1:30 – 3:30 <i>Hartnell College, Salinas</i>	Overview of Hartnell College's Agricultural Business & Technology Institute, and Tours	<i>Susan Pheasant, Director Agricultural Business & Technology Institute, Hartnell College</i>
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TUESDAY – JULY 12

Salinas/Monterey

8:30 – 12:00 <i>Taylor Farms, Salinas</i>	Demonstration of Field Harvesting, and Tour of Packing Plant	<i>Cosme Pina, Food Safety Manager, Taylor Farms, LLC</i> <i>Jason Kawata, Taylor Farms California</i>
1:30 – 3:00 <i>Comgro Soil, Hollister</i>	Tour of Composting Facility	<i>Johnny Massa, President, Comgro Soil Amendments Inc.</i>

WEDNESDAY – JULY 13

Monterey/Tulare

2:00 – 4:30 <i>College of the Sequoias, Tulare</i>	Overview of Agricultural Programs at College of the Sequoias, and Tour of Facilities at Tulare Campus	<i>Louann Waldner</i> <i>Provost, College of the Sequoias</i>
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THURSDAY – JULY 14

Tulare

8:30 – 9:00 <i>VMTRC</i>	Overview of the Veterinary Medicine Teaching & Research Center	<i>Terry Lehenbauer, Director Veterinary Medicine Teaching & Research Center (VMTRC)</i>
9:30 – 12:00 <i>Local Dairy</i>	Demonstration of Dairy Production	<i>Terry Lehenbauer, Director</i> <i>Deniece Williams, Dairy Production Specialist</i>
1:30 – 4:00 <i>VMTRC, CAHFS</i>	Tours of Milk Quality Laboratory, and the California Animal Health & Food Safety Laboratory System	<i>Kathy Glenn, Milk Quality Laboratory</i> <i>Jennifer Crook, Milk Quality Laboratory</i> <i>John Adaska, CAHFS-Tulare</i>

FRIDAY – JULY 15

Tulare

8:30 – 10:30	Tour Horizon Nut Company, LLC	<i>Andrew Howe, Director of Operations</i>
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MONDAY – JULY 18

1041 Gladys Valley Hall

9:00 – 9:50 CAHFS	Discussion on Metals That Pollute Our Environment and Adversely Affect Human and Animal Health	<i>Robert Poppenga, Professor, California Animal Health and Food Safety Laboratory System</i>
10:00 – 10:45 CAHFS	Tour of California Animal Health & Food Safety Laboratory System at Davis	<i>Robert Poppenga</i>
11:00 – 12:00	Diagnostic Veterinary Toxicology	<i>Birgit Puschner, Professor, Department of Molecular Biosciences, School of Veterinary Medicine</i>
1:30 – 2:20	How We Extend Information About Animal Welfare	<i>Carolyn Stull, Veterinary Extension Specialist</i>
2:30 – 3:30	Integrative Sports Medicine	<i>Sarah le Jeune, School of Veterinary Medicine</i>

TUESDAY – JULY 19

1041 Gladys Valley Hall

9:00 – 10:00	Group Discussion #3	<i>Heather Johnson, WIFSS David Goldenberg, WIFSS</i>
10:00 – 12:00	Prepare for Presentations	
1:30 – 2:30	Integrative Medicine	<i>Jamie Peyton, Chief, Small Animal Integrative Medicine Service, VMTH</i>
2:30 – 3:30	Conference Review and Closing Questionnaire	<i>Michael Luo, Peter Hui, June Zhuo</i>

WEDNESDAY – JULY 20

Winters/Sacramento

8:30 – 10:30 Winters	Demonstration of Tomato Harvesting	<i>Button - Turkovich Farms</i>
11:00 - 12:00 Sacramento	Tour of DiMare Fresh Packing Company	<i>Jeffrey T.B. Dolan, Field Operations Manager, DiMare Fresh</i>

THURSDAY – JULY 21
1041 Gladys Valley Hall

9:00 – 10:00 1041 Valley	Dairy Food Safety, Antibiotic Use and Food Outbreak Investigation	<i>Michael Payne, Dairy Outreach Coordinator, WIFSS</i>
10:00 – 12:00 Russell Blvd	UC Davis Pastured Poultry Farm	<i>Deb Niemeier, Department of Civil and Environmental Engineering</i>
1:00 – 2:00	How to Keep Communication Open & Establishing One Health Clubs	<i>Michael Luo, Peter Hui, June Zhuo Nanjing Agricultural University</i>
2:00 – 4:00	Work on Presentations	

FRIDAY – JULY 22
1041 Gladys Valley Hall

9:00 – 9:45	Closing Remarks	<i>Bennie Osburn, Director, Outreach & Training, WIFSS</i>
10:00 – 11:00	Group Presentations	<i>Faculty Teams</i>
11:15 – 11:30	Certificate Ceremony	<i>Robert Atwill, Director, WIFSS</i>



Amanda Arens

Dr. Amanda Arens is Program Manager at WIFSS and provides coordination and oversight for WIFSS Outreach projects and a team of scientific researchers and educational specialists. Additionally, she provides expertise and experience in program development, assessment and evaluation. Dr. Arens has a strong research background in translational medicine and her current position places her at the interface of humans, animals and the environment in a One Health approach to food safety.



Robert Atwill

Dr. Robert Atwill is Director of the Western Institute for Food Safety and Security (WIFSS), and Director of Veterinary Medicine Extension, UC Davis School of Veterinary Medicine. He is a professor of epidemiology and medical ecology in the Department of Population Health and Reproduction. Dr. Atwill's major research focus is on the epidemiology and medical ecology of infectious diseases potentially transferred between livestock, wildlife and humans.



Matthew Blake

Mr. Matthew Blake is the Chief Operating Officer of the One Health Institute within the UC Davis School of Veterinary Medicine. He has been engaged in business operations for his entire career and has a particular interest in organizational development.



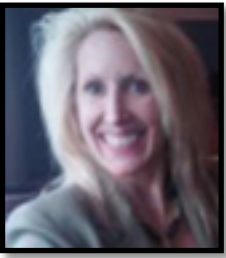
Marita Cantwell

Dr. Marita Cantwell is a postharvest specialist, in the Department of Plant Sciences. The objectives of Dr. Cantwell's research and extension program are to identify and solve problems related to the postharvest physiology, quality, handling and storage of fresh vegetables. As a Cooperative Extension Specialist, she conducts a research and education program for the benefit of fresh produce growers-shippers, and handlers and distributors of these fresh products.



David Goldenberg

Mr. David Goldenberg is an instructor in food safety with the Western Institute for Food Safety and Security. He contributes to food safety projects for the U.S. 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.



Clare Hasler-Lewis

Dr. Clare Hasler-Lewis is Executive Director of the Robert Mondavi Institute for Wine and Food Science at the University of California. Dr. Hasler-Lewis is an internationally recognized authority on function foods. She holds a dual PhD in environmental toxicology and human nutrition. The Institute is an important forum for collaboration between the departments of Viticulture and Enology and Food Science and Technology.



Carol Hillhouse

Ms. Carol Hillhouse is School Garden Program Director and Ecological Garden Coordinator at the University of California Davis Student Farm. Hillhouse works to raise the awareness of interns and volunteers to a better understanding of agriculture and our food system through the Student Farm's rich gardening experiences.



Michele Jay-Russell

Dr. Michele Jay-Russell is program manager for the Western Center for Food Safety and liaison to WIFSS. Her research interests are in food safety and veterinary public health with an emphasis on the molecular epidemiology of enteric zoonotic foodborne pathogens. Recent work aims to understand the role of wildlife and domestic animals in the environmental dissemination of *Campylobacter* and E. coli O157 on dairy and produce farms.



Heather Johnson

Ms. Heather Johnson is an 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.



Terry Lehenbauer

Dr. Lehenbauer is an associate professor and Director of the Veterinary Medicine Teaching and Research Center, in the School of Veterinary Medicine. He is Director of the Center for Food Animal Health and provides oversight for the school's research programs related to food animal health and well-being, food safety, and healthy environments for both food animals and people. His area of expertise is dairy cattle herd health and production medicine with an emphasis on infectious disease epidemiology, risk management and animal health economics.



Sarah le Jeune

Dr. Sarah le Jeune, an associate professor of clinical surgical and radiological sciences with the School of Veterinary Medicine at UC Davis, is interested in clinical research in the field of equine gastro-intestinal disease, general surgery and equine integrative sports medicine, with a focus on the diagnosis and treatment of lameness and various performance-related musculoskeletal injuries by taking an integrative approach including acupuncture and chiropractic.



Frank Mitloehner

Dr. Frank Mitloehner is a professor and air quality specialist in cooperative extension in the Department of Animal Science, at the University of California, Davis. He is an expert for agricultural air quality, animal-environmental interactions, and agricultural engineering. Dr. Mitloehner was elected chairman of a global United Nations FAO project to benchmark the environmental footprint of livestock production. He serves as a workgroup member on the President's Council of Advisors on Science and Technology (PCAST).



Kelly Nimitz

Mr. Kelly Nimitz 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.



Elina L. Niño

Dr. Elina Lastro Niño is an apiculture extension and research specialist in the Department of Entomology and Nematology at the University of California, Davis. In the field lab at the Harry H. Laidlaw Jr. Honey Bee Research Facility and her lab on campus she conducts practical, problem-solving research projects in honey bee biology, health, and breeding, behavior, reproductive physiology, genomics, chemical ecology, and the sociology of beekeeping. She supports the state's beekeepers through research, extension and outreach as she works to address beekeeper and industry concerns.



Anita Oberbauer

Dr. Anita Oberbauer is a Professor of Animal Science at the University of California, Davis and the Chair of the Department of Animal Science. Dr. Oberbauer studies growth and development focusing on skeletal growth and body composition as well as the genetic basis for animal health disorders.



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.



Jamie Peyton

Dr. Jamie Peyton has joined the UC Davis Veterinary Medical Teaching Hospital as chief of the Small Animal Integrative Medicine Service. Dr. Peyton an emergency and critical care specialist, developed a small animal emergency and critical care residency program. She investigates additional therapies for pain control, increased mobility and patient quality of life with a focus on combining conventional medicine with complementary therapy to provide a whole patient approach.



Susan Pheasant

As Director of Hartnell College's Agricultural Business and Technology Institute, Dr. Pheasant focuses on building community partnerships, education of farmworkers, supporting programs in Agribusiness, Food Safety, Agricultural Industry Technology, and Sustainable Crop Management among others. Dr Pheasant has served as consultant for national and international agribusinesses specializing in change technologies and third party audits for fresh fruit/vegetables and food safety.



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.



Birgit Puschner

Dr. Birgit Puschner, Professor, and Chair, of the Department of Molecular Biosciences, School of Veterinary Medicine, focuses her research on diagnostic veterinary toxicology; poisonous plants; algal toxins; and natural toxins.



LouAnn Waldner

C. Louann Waldner is Provost of the Tulare College Center at College of Sequoias, Visalia, CA. She is the administrator over the programs at the Center which include 320 acres of farming operations as well as 120 acres of campus and instructional facilities including an 11,000 square foot welding/ag technology lab, animal laboratories, plant and horticulture laboratories as well as student support services such as library and related student services. Dr. Waldner oversees the Agriculture Division which is located at the Center.



Deniece Williams

Dr. Deniece Williams teaches the DVM professional curriculum and graduate clinical training programs at the VMTRC. She works with faculty, residents and students to facilitate team development and research in the areas of Dairy Production Medicine and Herd Health. She provides clinical veterinary herd health and reproductive services. Dr. Williams' research interests include neonatal calf disease, bovine respiratory disease (BRD), mastitis and epidemiology of infectious disease in dairy cattle.



Chris Brunner
Conference Coordinator
Public Relations Officer, WIFSS



Jenny Chen
Conference Staff Support



Nicole Nisson
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Program Assistant, WIFSS