NAU-UC Davis Education Conference on One Health for Food Safety and Security

University of California, Davis

January 20 – February 7, 2020

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

UCDAVIS VETERINARY MEDICINE

UCDAVIS COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

Conference Description

The NAU-UC Davis Education Conference on One Health for Food Safety and Security, held at University of California, Davis, January 20 – February 7, 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 and plant health. The conference is sponsored by Nanjing Agricultural University and hosted by the Western Institute for Food Safety and Security, (WIFSS). The comprehensive program included lectures, field trips, and team-building exercises which increased the students' awareness of taking a multidisciplinary approach to solving complex problems concerning the health of people, animals and the environment. This One Health approach to solving problems is critical in promoting progress towards safer, better quality food systems and healthy animals and plants in China.

WIFSS's One Health conferences are building 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 and plant health. NAU students, schooled in teamwork at the conferences, 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:
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- Chris Brunner, Communications and International Programs Coordinator, WIFSS
- Jenny Chen, Co-Conference Coordinator, WIFSS
- James Cullor, Professor Emeritus, School of Veterinary Medicine
- Sara Garcia, Project Scientist, WIFSS
- David Goldenberg, Food Safety and Security Training Coordinator, WIFSS
- Heather Johnson, Educational Specialist, WIFSS
- Michael Luo, One Health Coordinator, WIFSS
- Nicole Nisson, Program and Financial Assistant, WIFSS
- Bennie Osburn, Director of Outreach and Training, WIFSS
- Carol Wang, One Health Coordinator, WIFSS
- Gregory Wlasiuk, E-Learning Curriculum Designer, WIFSS

WEEK ONE

SUNDAY – JANUARY 19			
3:00 – 4:00	1477 Drew Ave Ste 101	Arrive WIFSS	*Ms. Jenny Chen, Ms. Chris Brunner, and Ms. Carol Wang*
MONDAY – JANUARY 20			
9:00 – 9:15	WIFSS Conference Room	Welcome and Introduction of Conference Leadership	***Dr. Bennie Osburn**, Director for Outreach & Training, Western Institute for Food Safety and Security*
9:15 – 10:15	WIFSS Conference Room	One Health Overview - What is it? Why do we Care?	***Dr. Bennie Osburn,** Director for Outreach & Training, Western Institute for Food Safety and Security*
10:15 – 10:30	WIFSS Conference Room	BREAK and Opening Survey	***Carol Wang**, Coordinator One Health Youth*
10:30 – 12:00	WIFSS Conference Room	Introducing One Health Activity	***Heather Johnson**, Instructional Systems Designer, Western Institute for Food Safety and Security, and **Emily Enyart**, senior at Casa Roble High School*
11:30 – 1:00		LUNCH	
1:00 – 1:45	WIFSS Conference Room	Power of One	***Chris Brunner**, Communications and International Programs Coordinator, Western Institute for Food Safety and Security*
2:00 – 2:45	WIFSS Conference Room	California History	***Kelly Nimtz**, Director Emeritus for Development, School of Veterinary Medicine*
TUESDAY – JANUARY 21			
9:00 – 10:15	1041 Valley	**Discussion # 1 –** All About Me Activity	***Heather Johnson**, Instructional Systems Designer, **Dr. Sara Garcia**, Project Scientist, **David Goldenberg**, Food Safety and Security Training Coordinator, **Dr. Bennie Osburn**, Director for Outreach & Training, **Chris Brunner**, Communications, and **Gregory Wlasiuk**, E-Learning Curriculum Designer, WIFSS; **Dr. James Cullor**, Professor Emeritus, School of Veterinary Medicine*
10:15 – 10:30		BREAK	
10:30 – 11:15	1041 Valley	Soil Health: Linking Ecosystem Health to Human and Animal Health: Challenges and Opportunities?	***Dr. Jorge Rodrigues**, Assoc. Professor, Department of Land, Air, and Water Resources*
11:15 – 12:00	1041 Valley	Plant Health	***Dr. Maeli Melotto**, Assoc. Professor, Department of Plant Sciences*
12:00 – 1:30	1041 Valley	LUNCH	
1:30 – 2:15	1041 Valley	How to Communicate Scientific Subjects to the Public	***Gregory Wlasiuk**, E-Learning Curriculum Designer, WIFSS*
2:15 – 2:30	1041 Valley	Connect the Dots Session and Instructions for Field Trip	***Dr. Osburn** and **Chris Brunner**, WIFSS*
WEDNESDAY – JANUARY 22 – Monterey			
7:45	Campus	Board Bus	*Valley Parking Lot VP-50*
8:00		Bus Departs Campus	

11:30	Salinas	LUNCH	*In-N-Out Burger, 151 Kern St. Salinas 93905*
12:30		Board Bus	
12:45	ARS Field Station	Arrive USDA ARS Field Station	*1636 E. Alisal Street, Salinas, 93905 (831-755-2828)*
1:00 – 3:00	ARS Field Station	Welcome and Overview of Activities at USDA ARS Field Station; Water Quality Evaluation Exercises	***Ms. Sharon Benzen**, Agronomist, USDA-Ag Research Service, and **Mr. Ronald Bond**, Water Quality Researcher, Field Coordinator, WIFSS*
3:00	ARS Field Station	Board Bus	
3:30	Monterey	Check into Hotel	*Casa Munras Garden Hotel & Spa, 700 Munras Ave, Monterey 93940 (831-375-2411)*
6:00		GROUP DINNER	*China Garden, 600 Munras Ave, Monterey, CA 93940, (831) 375-1111*
THURSDAY – JANUARY 23- Salinas & Golden Gate Bridge			
8:15	Monterey	Check out of Hotel	
8:30		Bus Departs Monterey	
9:00 – 9:30		Visit Public Beach	
12:00 – 1:00	San Francisco	Golden Gate Bridge Excursion	*Golden Gate National Recreation Area View Area*
1:00		Depart Park	
1:30	Mill Valley	LUNCH	*In-N-Out Burger, 798 Redwood Hwy, Mill Valley, CA 94941 (800) 786-1000*
2:30		Depart Restaurant	
4:30	Davis	Arrive Campus	*Parking Lot in Front of Valley, VP Lot 50*
FRIDAY – JANUARY 24 – Chinese New Year			
9:00 – 12:00	1041 Valley	**Discussion #2** Activities: Food Safety Risks and Mitigation – David Goldenberg	***David Goldenberg**, Food Safety and Security Training Coordinator, **Heather Johnson**, Instructional Systems Designer, **Dr. Sara Garcia**, Project Scientist, **Dr. Bennie Osburn**, Director for Outreach & Training, **Chris Brunner**, Communications, and **Gregory Wlasiuk**, E-Learning Curriculum Designer, WIFSS; **Dr. James Cullor**, Professor Emeritus, School of Veterinary Medicine*
12:00		Dismissed for Personal Study	
WEEK TWO			
MONDAY – JANUARY 27			
9:00 – 9:50	1041 Valley	Overview of Dairy Herd Health	***Dr. Richard Pereira**, Assistant Professor of Clinical Livestock Herd Health, School of Veterinary Medicine*
10:00 – 10:50	1041 Valley	One Health Approach to Sustainable Dairy Production and Dairy Food Safety	***Dr. Sara Garcia**, Project Scientist, Western Institute for Food Safety & Security*
10:50 – 11:00		BREAK	
11:00 – 11:50	1041 Valley	Digital Agriculture	***Dr. Alireza Pourreza,** Assistant Cooperative Extension Specialist*
12:00 – 1:30		LUNCH	

1:30 – 2:30	1041 Valley	Dairy Digester Research	***Dr. Pramod Pandey**, School of Veterinary Medicine*
2:30 – 3:00		Connect the Dots Session and Discussion of Field Trip	***Dr. Bennie Osburn**, Director for Outreach & Training, WIFSS*
TUESDAY – JANUARY 28 – Field Trip – Tipton/Tulare			
9:00	Campus	Board Bus	*In front of Valley, Visitor Parking Lot 51*
9:15		Bus Departs Campus	
11:30	Merced	LUNCH BREAK	*Location to Be Determined in Merced*
12:30		Bus Departs Merced	
2:30	Tipton	Arrive Dairy Digester	*Tim VanBeek Dairy Owner*
2:30 – 3:30		Tour Dairy Digester Operation	
3:30		Board Bus	
4:00	Tulare	Arrive Tulare – Check into Hotel	*Hampton Inn & Suites 1100 N. Cherry Street Tulare, CA 93274, US 559-686-8700*
6:00		GROUP DINNER	*Que Pasa Mexican Café, 1548 Hillman St, Tulare (559) 684-0600*
WEDNESDAY – JANURARY 29 – Field Trip – Tulare			
8:00	Tulare	Check Out of Hotel	*Hampton Inn & Suites*
8:15		Board Bus	
8:30	VMTRC	Arrive VMTRC	*Veterinary Medicine Teaching & Research Center, 18830 Road 112, Tulare (559) 688-1731*
8:30 – 9:00	Conf. Room	Overview of VMTRC	***Dr. Terry Lehenbauer**, Director, Veterinary Medicine Teaching & Research Center (VMTRC)*
8:30 – 9:00	Conf Room	Extension Overview	***Dr. Noelia Silva del Rio**, Cooperative Extension Specialist, VMTRC*
9:00 – 9:30	Conf Room		
9:30 – 9:45		BREAK and Board Bus for Dairy Tour	
9:45 – 11:45	Dairy Ranch	Tour of Dairy Ranch	***Dr. Blanca Camacho**, Dairy Production Medicine Clinician, VMTRC*
12:00 – 1:30	Conf Rm	LUNCH	*Catered*
1:30		Board Bus	
3:30	Merced	BREAK	
5:30	Davis	Arrive Davis Campus	
THURSDAY – JANUARY 30			
9:00 – 10:15	2030 Valley	**Discussion #3**: Preparing the Final Presentation	***David Goldenberg**, Food Safety and Security Training Coordinator, **Heather Johnson**, Instructional Systems Designer, **Dr. Sara Garcia**, Project Scientist, **Dr. Bennie Osburn**, Director for Outreach & Training, **Chris Brunner**, Communications, and **Gregory Wlasiuk**, E-Learning Curriculum Designer, WIFSS; **Dr. James Cullor**, Professor Emeritus, School of Veterinary Medicine*
10:15 – 10:30		BREAK	
10:30 – 11:30	2030 Valley	Sustainable Intensification: How to Satisfy the Rising Demand for Animal Protein Without Depleting Natural Resources	***Frank Mitloehner**, Professor, Department of Animal Science*
11:30 – 1:00		LUNCH	

1:10 – 2:00	2030 Valley	Graduate Education at UC Davis and in USA	***Dr. Xinbin Chen**, Professor and Researcher, Department Surgical and Radiological Sciences, School of Veterinary Medicine*
2:00		Wrap Up	***Dr. Bennie Osburn**, WIFSS*
FRIDAY – JANUARY 31			
10:00 – 10:45	1041 Valley	California Department of Conservation	***Dr. David Dodds**, Division of Land Resource Protection, California Department of Conservation*
10:45 – 12:00		Tour of Arboretum	*(Weather allowing)*
12:00		Dismissed	
WEEK THREE			
MONDAY – FEBRUARY 3 – Individualized Breakout Activities			
9:00 – 11:30	RMI South 2211	**Food Science and Technology Students Robert Mondavi Institute for Wine and Science**	*Derrick Risner and Jill Wei, Graduate Students, Department of Food Science and Technology*
9:00 – 11:30		**Agricultural Engineering Students** Lecture: Biological Systems Engineering Graduate Program Tour:	***Dr. Bryan M. Jenkins,** Professor and Chair, and **Dr. Ruihong Zhang**, Professor, UC Davis Department of Biological and Agricultural Engineering*
9:00 – 11:30	TBD PES	**Plant Protection and Horticulture Students Discussions and Talks at Department of Plant Sciences**	*Graduate Students in Plant Sciences*
9:00 – 11:30	TBD Meyer Hall	**Animal Science & Technology, and Veterinary Students** Discussions and Tour of Department of Animal Sciences	***Dr. Xiang (Crystal) Yang**, Assistant Professor, and **Caleb Sehnert**, Animal Resource Supervisor, UC Davis Department of Animal Science*
12:00 – 2:00	1041Valley	LUNCH – All	
1:00 – 2:00	VMTH Lobby	**Veterinary Medicine Students Only** Tour of Veterinary Medical Teaching Hospital	***Emily Bingham**, Class of 2031, School of Veterinary Medicine*
TUESDAY – FEBRUARY 4			
9:00 – 9:50	1041 Valley	A study of antimicrobial resistance among bacteria from dairy cattle in different management units on a California dairy farm.	***Dr. Xunde Li,** Researcher, Western Institute for Food Safety and Security*
9:50 – 10:00		BREAK	
10:00 – 10:50	1041 Valley	Plant Viruses, Diseases and Control Strategies	***Dr. Bryce Falk**, Distinguished Professor, College of Biological Sciences*
10:50 – 11:00		BREAK	
11:00 – 11:50	1041 Valley	Feed-based Technologies to Improve Weaned Pig Health and Production	***Dr. Yanhong Liu,** Assistant Prof, Department of Animal Science*
12:00 – 1:30		LUNCH	
1:30-2:15	1041 Valley	Graduate Fair Panel Discussion	
2:20 – 3:00	1023 Valley	Graduate Fair Group Coordinators	
WEDNESDAY – FEBRUARY 5			
9:00 – 11:00	1041 Valley	An Overview of Honeybee Biology and Management	***Bernardo D. Niño**, SRA, EL Niño Bee Lab*
11:30 – 1:00		LUNCH	

1:00 – 3:00	1041 Valley	Teamwork on Final Presentations	*Team Facilitators*
THURSDAY – FEBRUARY 6			
9:00 – 9:50	1020 Valley	Tofel and GRE	***Gregory Wlasiuk**, e-Learning Curriculum Designer, and **Dr. Sara Garcia**, Project Scientist, WIFSS*
9:50 – 10:00		BREAK	
10:00 – 10:50	1020 Valley	Involvement of Microbiome Analysis in Food Safety Research	***Dr. Luxin Wang**, Assistant Professor, Department of Food Science and Technology*
11:00 – 12:00	1020 Valley		
12:00 – 1:30		LUNCH	
1:30 – 3:00	1020 Valley	Teamwork on Final Presentations	
FRIDAY – FEBRUARY 7 – FINAL DAY			
8:30 – 9:00	1041 Valley	Closing Remarks	***Dr. Bennie Osburn**, Western Institute for Food Safety and Security*
9:00 – 9:20	1041 Valley	Team One	*Team Facilitator*
9:20 – 9:40	1041 Valley	Team Two	*Team Facilitator*
9:40 – 9:55		BREAK	
9:55 – 10:15	1041 Valley	Team Three	*Team Facilitator*
10:15 – 10:35	1041 Valley	Team Four	*Team Facilitator*
10:35 – 10:55	1041 Valley	Team Five	*Team Facilitator*
10:55 – 11:10		BREAK	
11:10 – 11:30		Group Photo Outdoors	
11:30 – 12:15	1041 Valley	Certificate Ceremony	***Dr. Bennie Osburn**, WIFSS*
12:15 – 1:30	1023 Valley	LUNCH and Video Show	*Catered Lunch*
11:00 pm	Parking Lot 15	Depart Campus	*Bus Departs Campus from Parking Lot 15*

Speakers Bios

Ronald Bond

Prior to beginning his career at the UC Davis Western Center for Food Safety and the Western Institute for Food Safety and Security, Ronny Bond managed field and laboratory logistics and a shellfish sanitation program at the University of Southern Mississippi's Gulf Coast Research Laboratory. His current research focuses on how physical/chemical processes within watersheds and agricultural water infrastructure create ecologically important conditions favorable to proliferation of disease-causing bacteria, this includes monitoring and sampling of water, directing data collection of geographic, hydrologic and meteorological conditions.

Chris Brunner

As the Communications and International Programs Coordinator 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.

Blanca Camacho

Dr. Blanca E. Camacho teaches Dairy Production Medicine within the clinical program at the VMTRC. She works alongside faculty, residents, and students and provides herd health and reproductive services. Dr. Camacho's research interests include epidemiology of antimicrobial resistance, antimicrobial use and stewardship, dairy laborer training and education, and neonatal calf disease.

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.

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.

Emily Enyart

Emily Enyart is currently a senior at Casa Roble High School. She is an editor-in-chief of the yearbook program, president of the National Honors Society, and the founding president of the Kiwanis Key Club. Emily looks forward to majoring in either Astronomy or Marine Science in college. She will study Astronomy at Embry-Riddle Aeronautical University in Prescott, Arizona, or Marine Science at California State University, Monterey Bay.

Bryce Falk

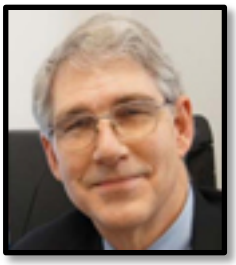
Bryce Falk is a Distinguished Professor in the UC Davis Department of Plant Pathology. His lab studies plant and insect viruses with an emphasis on understanding virus: host interactions and insect vector transmission of viruses to plants. His lab has developed strategies to engineer plants for resistance to plant viruses and is utilizing molecular biological approaches to engineer plant and insect viruses as tools to target insect vectors of plant pathogens.

David Goldenberg

Mr. Goldenberg is an instructor in food safety 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.

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.



Bryan Jenkins

Dr. Bryan M. Jenkins teaches and conducts research in the areas of energy and power, with emphasis on biomass and other renewable resources. He is Department Chair in the Department of Biological and Agricultural Engineering, University of California, Davis. Dr. Jenkins has more than thirty years of experience working in the area of biomass thermochemical conversion including combustion, gasification, and pyrolysis. His research also includes analysis and optimization of energy systems.

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.

Terry Lehenbauer

Dr. Lehenbauer is Professor in the Department of Population Health and Reproduction, and Director of the Veterinary Medicine Teaching and Research Center, in the School of Veterinary Medicine. His research focuses on dairy cattle herd health and production medicine with an emphasis on infectious disease epidemiology, risk management and animal health economics, especially related to bovine respiratory disease, mastitis, and antimicrobial use.

Xunde Li

Dr. Xunde Li is a research microbiologist who works on food and waterborne pathogens in the Atwill Water and Foodborne Zoonotic Disease Laboratory at WIFSS. His research focuses on survival and transmission of zoonotic pathogens, molecular epidemiology of protozoal pathogens and dynamics of antibiotic resistant bacteria in animal production systems.

Yanhong Liu

Dr. Yanhong Liu is assistant professor in the Department of Animal Science at the University of California, Davis. Her research evaluates dietary effects on pig health by investigating impacts of products now available to the industry and developing new approaches for the industry. The long-term goal of the research taking place in her Comparative Animal Nutrition and Physiology Laboratory is to help the animal industry deploy feed-based health

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.

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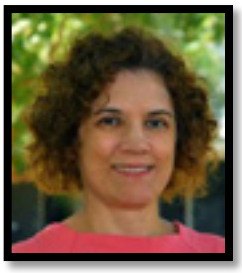


Maeli Melotto

Dr. Maeli Melotto, is an associate professor in the Department of Plant Sciences, specializing in plant-pathogen interactions. The Melotto lab is focused on understanding the close interaction between plants and human pathogens at the molecular level. The researchers seek to know how the plant immune system works to fight against pathogen infection and how pathogens employ virulence strategies to overcome plant defenses.

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 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.

Bernardo D. Niño

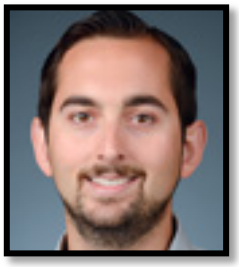
Bernardo Niño is a senior research associate in the E.L. Niño Bee Lab in the Department of Entomology and Nematology at the University of California, Davis. He leads multiple projects on varroa control, honeybee health and nutrition, and oversees the management of over 150 hives. He has also developed several educational programs for diverse audiences and for the past 10 years he has been involved with organizing and running Queen Rearing Workshops and serves as the Educational Supervisor of the California Master Beekeeper Program.

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.

Pramod Pandey

Dr. Pandey is a UC cooperative extension specialist in the Department of Population Health and Reproduction in the School of Veterinary Medicine. His research interests include evaluating pathogenic microorganisms in rendering products and assessing impacts of feedstock of dairy cows on animal waste pathogens.



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.

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Alireza Pourreza

Dr. Alireza Pourreza is an assistant cooperative extension specialist of agricultural mechanization in the department of biological and agricultural engineering at the University of California, Davis. Dr. Pourreza conducts research and extension education in the fields of Digital agriculture, Automation, and sensing.

Jorge Rodrigues

Dr. Jorge Rodrigues is a professor in the Department of Land, Air and Water Resources. The research theme in his laboratory is to understand the nature and ecology of microbial processes of importance in nature and of value to mankind. His particular interests span from biological regulation of biogeochemical cycles and natural and agricultural ecosystems to microbial diversity and functionality in termite hindguts. His areas of expertise are microbial community analyses, metagenomics, metatranscriptomics and soil microbiology.

Noelia Silva-del-Rio

Dr. Silva-del-Río obtained her Doctor of Veterinary Medicine in Spain in 1998. She completed her PhD in Dairy Science at the University of Wisconsin-Madison (2007), with an emphasis in dairy cattle nutrition and reproductive physiology. From Aug 2008 to Feb 2012, Dr. Silva-del-Río served as the dairy advisor for Tulare County in the University of California Cooperative Extension. Silva-del-Rio's research interests include nutritional management, corn silage management, milk quality, animal welfare, periparturient health problems, and the effects of heat stress on Central Valley dairy herds.

Luxin Wang

Dr. Luxin Wang, UC Davis Food Science and Technology, studies the 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 with the goal to manage foodborne pathogens from farm and pond to fork, thus ensuring a safe and sustainable food supply chain.

Gregory Wsaliuk

Mr. Greg Wlasiuk 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.

Xiang Yang

Dr. Xiang (Crystal) Yang is Assistant Professor, Assistant Meat Scientist, in the Department of Animal Science. Dr. Yang's research interests include the evaluation and validation of new antimicrobial chemicals and interventions against foodborne pathogens, as well as the investigations of the influence meat safety strategies have on the quality and shelf-life of meat products.

Ruihong Zhang

Ruihong Zhang is Professor and Graduate Program Chair in the Department of Biological and Agricultural Engineering, UC Davis. Dr. Zhang's focus of research is bioenvironmental engineering. She studies treatment of agricultural and food wastes for pollution prevention and resource utilization; air quality control for animal and human environments; study of biological, physical, and chemical processing techniques for organic waste conversion and nutrient management.

Staff Support

Chris Brunner
Communications and International Programs Coordinator, WIFSS

Jenny Chen
Public Relations Assistant, WIFSS

Nicole Nisson
Program and Financial Assistant, WIFSS