# Integrating One Health for Animal and Veterinary Sciences Conference

University of California, Davis July 31 – August 18, 2017

Sponsored by: Jiangsu Agri-animal Husbandry Vocational College and Nanjing Agricultural University

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











# **Conference Description**

The Western Institute for Food Safety and Security, (WIFSS), is hosting the Integrating One Health for Animal and Veterinary Sciences Conference at the University of California, Davis, from July 31 to August 18, 2017. The conference is sponsored by Jiangsu Agri-animal Husbandry Vocational College (JSAHVC) and Nanjing Agricultural University (NAU). Students and faculty from NAU and JSAHVC, colleges of animal science and veterinary medicine will participate in the conference.

UC Davis's School of Veterinary Medicine, College of Agricultural and Environmental Sciences, and WIFSS have formed an educational exchange program with NAU in support of 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. Corresponding educational programs will promote progress towards safer, better quality food systems and healthy animals in China.

The conference will introduce participants to current animal science and veterinary medical programs at UC Davis. Professors from the School of Veterinary Medicine, Department of Animal Sciences, and the Department of Entomology and Nematology, will provide lectures on veterinary and animal science courses and practices. A representative from the California Department of Food and Agriculture will inform the audience of jobs in regulatory veterinary medicine. Faculty and students will participate in guided tours of veterinary practices in California, and the University of California Bodega Marine Laboratory.

The conference raises awareness of the One Health concept. Lectures, combined with field trips, and teambuilding discussions, help increase participant's understanding of the interrelationship between people, animals, and the environment.

Special thanks to our speakers, 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, Subject Matter Expert, WIFSS
- David Goldenberg, Food Safety and Security Training Coordinator, WIFSS
- Heather Johnson, Educational Specialist, WIFSS
- Nicole Nisson, Program and Financial Assistant, WIFSS
- Bennie Osburn, Director of Outreach and Training, WIFSS
- Jamie Pereira, Small Animal Veterinarian, General Practice

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MONDAY –			
9:00 – 9:50	1020 Valley	Welcome and Overview of One Health	<b>Bennie Osburn</b> , Western Institute for Food Safety & Security
9:50 – 10:00		BREAK	
10:00 – 11:30	1020 Valley	Team Assignments Group Discussion #1	James Cullor, Sara Garcia, David Goldenberg, Heather Johnson, Bennie Osburn, Jamie Pereira
11:30 – 1:00	1020 Valley	LUNCH	
1:00 – 2:00	1020 Valley	History of California	<i>Kelly Nimtz</i> , Director Emeritus for Development, School of Veterinary Medicine
TUESDAY -	AUGUST 1		
9:00 – 10:00	1020 Valley	Optimizing Detection of Pathogens for Large Scale Agricultural Food Systems	<b>Rob Atwill,</b> Western Institute for Food Safety & Security
10:00 – 10:15		BREAK	
10:15 – 11:15	1020 Valley	New Methods of Spatial Epidemiology, Surveillance and Modeling of Livestock Diseases	<b>Beatriz Martinez</b> , School of Veterinary Medicine
11:15 – 1:00	1020 Valley	LUNCH	
1:30 – 2:30	1020 Valley	New Approaches to Meat Safety (Animal Science Students & Faculty)	Crystal Yang Department of Animal Science
1:30 – 2:30	1047 Valley	A 360° view of UCD Livestock Practice (Veterinary Medicine Students & Faculty)	<i>John Angelos</i> , School of Veterinary Medicine
<b>WEDNESDA</b>	Y – AUGUST 2	) -	
9:00 – 10:00	1020 Valley	UC Davis Integrative Veterinary Medicine Service	<i>Jamie Peyton</i> , School of Veterinary Medicine
10:00 – 10:30		BREAK	
10:30 – 11:30	1020 Valley	Dairy Dynamic Management	<i>James Cullor</i> , School of Veterinary Medicine
11:30 – 1:30		LUNCH	
1:30 – 2:30	1020 Valley	Feed-based Technologies to Improve Weaned Pig Health and Production (Animal Science Students & Faculty)	<b>Yanhong Liu</b> , Department of Animal Science
1:30 – 2:30	1047 Valley	Overview – Dairy Herd Health (Veterinary Medicine Students & Faculty)	<b>Richard Pereira</b> , School of Veterinary Medicine
2:30 – 3:30	1023 Valley	First Week Mixer	All
<b>THURSDAY</b>	– AUGUST 3		
9:00 – 10:00	1020 Valley	Sustainable Intensification: How to Satisfy the Rising Demand for Animal Protein Without Depleting Natural Resources	<i>Frank Mitloehner</i> , Department of Animal Science
10:00 – 10:15	1020 17 11	BREAK	Di ti Di di ci di
10:15 – 11:30	1020 Valley	Veterinary Toxicology and Food Forensics	Birgit Puschner, School of Veterinary Medicine
11:30 – 1:30	1020 17 11	LUNCH	Power Orleans W. A. T. W. A. T. 1
1:30 – 2:30	1020 Valley	Review Session – One Health Connections	Bennie Osburn, Western Institute for Food Safety and Security
2:30 – 3:30	Rehabilitation Clinic	Integrative Medicine Service	<i>Jamie Peyton</i> , School of Veterinary Medicine

FRIDAY – Al	JGUST 4		
9:00 - 10:00	1020 Valley	Principles of One Health Approaches to	<i>Maurice Pitesky</i> , School of Veterinary
		Poultry Production	Medicine
10:15	VP Lot 50	Board Vans (All)	
10:15 – 11:30	Poultry Farm	UC Davis Pastured Poultry Farm	<i>Maurice Pitesky</i> , School of Veterinary
		(Animal Science Students & Faculty)	Medicine
10:15 – 11:30	Goat Barns	Clinical Teaching	<i>Joan Rowe</i> , School of Veterinary Medicine
		(Veterinary Science Students & Faculty)	·
11:30		Vans Return to Valley	
11:30 – 12:00		LUNCH	

		WEEK TWO	
MONDAY –	AUGUST 7		
8:30	VP Lot 50	Depart Campus	
10:00 – 11:00	San Francisco	Tour Golden Gate Bridge	
11:30 – 1:00	Novato	LUNCH – In & Out Burger, All	
1:00 – 1:30	San Anselmo	Visit Ross Valley Veterinary Hospital	Grace Bransford, DVM, Owner, Ross Valley Veterinary Hospital
1:30 - 2:30	San Anselmo	Visit Emergency Clinic	Jim Clark, DVM, Owner
5:00	Santa Rosa	Check In, Flamingo Resort and Spa	, ,
5:30 – 9:00		Student – Free Time, Dinner on Your Own Faculty – Group Meeting	
TUESDAY -	- AUGUST 8		
8:00	Hotel	Board Bus	
8:30 – 10:00	Petaluma	Visit Organic Dairy	<i>Jim Riebli</i> Dairy Owner, and <i>Gene Harlan</i> , Veterinarian
10:30 – 5:00	TBD	Enology & Viticulture Tour (Lunch on your own)	
6:00 - 8:00	Santa Rosa	Group Dinner Restaurant - All	
WEDNESDA	Y – AUGUST 9		
8:30	Santa Rosa	Check Out of Hotel	
9:00	Carra Trosa	Board Bus	
10:00 - 11:00	Bodega Bay	UC Davis Bodega Marine Laboratory	Gary Cherr and Jim Moore, BML
11:00 – 12:00		Catered Lunch at BML	
12:00 – 2:00		Exploration Time	
4:30		Arrive Davis Campus	
	- AUGUST 10		
9:00 – 10:30	VMTH	Tours of Veterinary Medical Teaching Hospital	<b>Derek Blahut, Lauren Nicole Gentle,</b> <b>Rebecca Radisic</b> , School of Veterinary Medicine
9:00 – 11:30	1102 Gourley	Group Discussion #2 (Introduction Web of Causation)	James Cullor, Sara Garcia, David Goldenberg, Heather Johnson, Bennie Osburn, Jamie Pereira
FRIDAY – A	UGUST 11		75
9:00 – 10:00	1102 Gourley	Community Practice at Veterinary Medical Teaching Hospital (Veterinary Medicine Students & Faculty)	<i>Blythe Jurewicz</i> , School of Veterinary Medicine
10:15 – 11:15	1102 Gourley	Common Small Animal Dermatology Diseases in California (Veterinary Medicine Students & Faculty)	Catherine Outerbridge, School of Veterinary Medicine
11:25 – 12:15	1102 Gourley	Cattle Reproduction (Veterinary Medicine Students & Faculty)	<i>Bret McNabb</i> , School of Veterinary Medicine
9:00 – 10:00	1138 Meyer	Animal Science Curriculum (Animal Science Students & Faculty)	<i>Lee Pettey</i> , Department of Animal Science
10:15 – 11:15	1138 Meyer	Salmonella Project in Chickens (Animal Science Students & Faculty)	<i>Huaijun Zhou</i> , Department of Animal Science
12:15 – 1:30	1102 Gourley	LUNCH	
1:30 – 2:30	1102 Gourley	Mission of USDA ARS and New Technologies for Foods	<b>Zhongli Pan</b> , Biological and Agricultural Engineering

WEEK THREE			
MONDAY -	AUGUST 14		
9:00 – 10:00	VMTH	Demonstration of Ultrasound – Large Animal (Animal Science Students & Faculty)	<b>Betsy Vaughan</b> , School of Veterinary Medicine
9:00 – 10:00	VMTH	Demonstration of Ultrasound – Small Animal (Veterinary Science Students & Faculty)	<i>Eric Johnson</i> , School of Veterinary Medicine
10:00 – 10:30 10:30 – 11:30	1102 Gourley	BREAK UC Davis Graduate Education	Xinbin Chen, School of Veterinary Medicine
11:30 – 1:30 1:30 – 2:30	1102 Gourley	LUNCH Group Discussion #3 (Introduce handout #4)	James Cullor, Sara Garcia, David Goldenberg, Heather Johnson, Bennie Osburn, Jamie Pereira
TUESDAY -	AUGUST 15		
9:00 – 10:00	1102 Gourley	Best Practices to Prevent Spread of Pathogens from Animal Manure Sources	<i>Michele Jay-Russell</i> , Western Center for Food Safety
10:30 – 12:00		Client/Patient Demonstration	Heather Johnson, Western Institute for Food Safety & Security
12:00 – 1:30	1102 Gourley	LUNCH	
1:30 – 2:30	1102 Gourley	Final Review	<b>Bennie Osburn</b> , Western Institute for Food Safety & Security
WEDNESDA	Y - AUGUST 1	6	
9:00 – 10:00	1102 Gourley	Antibiotic Use and Resistance	<i>Mike Payne,</i> Western Institute for Food Safety and Security
10:00 – 10:15		BREAK	
10:15 – 11:15	1102 Gourley	Jobs in Regulatory Veterinary Medicine	Amanda Arens, Supervising Veterinarian, California Department Food & Agriculture
11:15 – 2:30	1102 Gourley	Group Discussion #4 (Build Presentations)	James Cullor, Sara Garcia, David Goldenberg, Heather Johnson, Bennie Osburn, Jamie Pereira
<b>THURSDAY</b>	- AUGUST 17		
8:30	Gourley	Board Vans Large Animal Parking Lot, Across Street from Gourley	
8:45 – 9:30	Bee Haven	Tour UC Davis Häagen-Daz Honey Bee Haven	Charley Nye, Department of Entomology and Nematology
9:30 – 9:45		BREAK	
9:45 – 10:15	Harry H. Laidlaw Jr. Honey Bee Research Facility	Tour of Bee Research Facility	Charley Nye, Department of Entomology and Nematology
10:15 – 11:15	Laidlaw Facility	Overview of Bee Program	Elina Lastro Niño, Department of Entomology and Nematology
11:15		Return to Gourley	
11:30 – 2:30	Gourley	Groups – Working Lunch	James Cullor, Sara Garcia, David Goldenberg, Heather Johnson, Bennie Osburn, Jamie Pereira

FRIDAY – AUGUST 18			
8:30	Gourley	Meet at Gourley	Walk to Grassy Knoll in Front of VMTH
8:35	VMTH	Group Photos in Front of VMTH	<i>Don Preisler</i> , School of Veterinary Medicine
9:00 – 9:45	1102 Gourley	Farewell and Call to Action	<b>Bennie Osburn</b> , Western Institute for Food Safety and Security
9:45 – 10:00		BREAK	
10:00 – 11:30	1102 Gourley	Group Presentations	Faculty and Students - Jiangsu Agri-animal Husbandry Vocational College and Nanjing Agricultural University
11:30 – 11:45		BREAK	
11:45 – 12:15	1102 Gourley	Certificate Presentations	<b>Bennie Osburn</b> , Western Institute for Food Safety and Security
12:30 – 2:00	Gourley Lobby	FAREWELL LUNCHEON	Catered



# John Angelos

Dr. John Angelos is Chair of the Department of Medicine and Epidemiology at the School of Veterinary Medicine and Professor of Veterinary Medicine, Infectious Diseases. His professional interests include internal medicine and infectious diseases of food producing animals and development of improved vaccination/vaccine delivery strategies to support sustainable food production practices. At WIFSS Dr. Angelos serves as a subject matter expert in livestock veterinary practice and food safety. He is a Diplomate of the American College of Veterinary Internal Medicine (Large Animal).



### **Amanda Arens**

Dr. Amanda Arens is a Supervising Veterinarian and the California Department of Food and Agriculture (CDFA). In her position at CDFA she oversees statewide programs including the Secure Food Supply and Animal Disease Traceability. In addition, she assists with conducting outreach on regulatory medicine and USDA accreditation to the California veterinary schools and California veterinary practitioners.



### Robert Atwill

Dr. Robert Atwill is Director of the Western Institute for Food Safety and Security, and Director of Veterinary Medicine Extension. He is a professor of epidemiology and medical ecology in the Department of Population Health and Reproduction, School of Veterinary Medicine, UC Davis. His academic program focuses on identifying strategies for minimizing microbial contamination of food and water.



### **Grace Bransford**

Dr. Grace Bransford has been a small animal veterinary practice owner for the past 13 years. She also is very active in organized veterinary medicine, having served in volunteer leadership roles for the American and California Veterinary Medical Associations for the last 19 years. She is a 1998 graduate of the UC Davis School of Veterinary Medicine. She earned her undergraduate degree from Stanford University.



### 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.



# Gary N. Cherr

Dr. Gary Cherr focuses his research on invertebrate, fish and mammalian reproduction and development, and how environmental stressors impact these processes. These include nanomaterials, endocrine disruptors, pharmaceuticals and personal care products, as well as petroleum compounds in marine environments. Dr. Cherr is also an investigator with the endangered white abalone breeding program. He is Professor of Environmental Toxicology and is Director of the UC Davis Bodega Marine Laboratory.



### James Clark

Dr. James Clark is a Clinical Professor in the UC Davis School of Veterinary Medicine where he introduces first year students to fundamental skills crucial to their academic and life success. Dr. Clark is a member UC Davis School of Veterinary Medicine Class of 1988. He earned an MBA from San Diego State College in 2002. He is an owner-partner in three veterinary emergency practices with over 100 employees. Dr. Clark developed the "Wise Coach" method for teaching communication, which has now been adopted at other veterinary schools.



### 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 earned her B.S. in Genetics and Ph.D. in Integrative Pathobiology at UC Davis. She has worked in both academia and industry and has expertise in food safety, microbiology and molecular genetics. Sara's research focuses on a One Health Approach to Dairy Production, which includes mastitis control, food safety and alternatives to antibiotics. Sara will continue her work as a Fulbright Postdoctoral Fellow in Rwanda, Africa.



# **David Goldenberg**

Mr. 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.



### Gene Harlan

Dr. Gene Harlan is the senior partner at Cotati Large Animal Hospital. He graduated from UC Davis School of Veterinary Medicine in 1973 and went on to complete a yearlong internship in equine and bovine reproduction. Dr. Harlan helped establish the Preceptor Program which allows senior veterinary students to come to Cotati Large Animal and learn medicine in "real world" conditions. He is also past president of the Cattleman's Association, and has been a Sonoma County 4-H leader and Animal Health Advisor for the California Dept. of Food and Agriculture.



# Michele Jay-Russell

Dr. Michele Jay-Russell is a veterinarian and research microbiologist with over 20 years of public health experience working in government and academia. She conducted numerous outbreak investigations while serving as an epidemiologist at the state and county levels in California. She currently manages the Western Center for Food Safety, and serves as a liaison to WIFSS at UC Davis. Her recent work focuses on produce food safety with an emphasis on reducing risk of foodborne pathogen transmission from domesticated and wild animals, untreated biological soil amendments (raw manure), and other sources on produce farms.



### **Eric Johnson**

Dr. Eric Johnson, Associate Professor of Clinical in the Department of Surgical & Radiological Sciences at UC Davis School of Veterinary Medicine currently serves as Chief of the Diagnostic Imaging Service in the William R. Pritchard Veterinary Medical Teaching Hospital. His special interests include diagnostic ultrasound and imaging of lymphatic pathways.



### **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.



# Blythe Jurewicz

Dr. Blythe Jurewicz is Assistant Clinical Professor in Community Practice Service at UC Davis School of Veterinary Medicine. Dr. Jurewicz earned her veterinary degree from UC Davis in 2005. She is a member of American Veterinary Medical Association, California Veterinary Medical Association, and Sacramento Valley Veterinary Medical Association.



# 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 technologies to improve animal health and increase the production of safe and nutritious food worldwide.



# Beatriz Martinez Lopez

Dr. Beatriz Martinez Lopez is Associate Professor in the Department of Medicine and Epidemiology, Agricultural Experiment Station faculty, and Director of the UC Davis Center for Animal Disease Modeling and Surveillance (CADMS). Her specialty focus is on Quantitative Epidemiology: Spatial analysis, Risk analysis, Disease spread models, social network analysis, statistical analysis (both Frequentists and Bayesian). She researches epidemiological modeling and risk assessment for the evaluation of the potential introduction and/or spread of diseases affecting domestic and/or wild animal populations.



### Bret McNabb

Dr. Bret McNabb is Assistant Professor of Clinical Livestock Reproduction in the Department of Population Health & Reproduction at the UC Davis School of Veterinary Medicine. He currently serves as the chief of the Livestock Herd Health and Reproduction Service. Dr. McNabb graduated from the UC Davis School of Veterinary Medicine in 2007. He is a board-certified Diplomate of the American College of Theriogenologists, and the American Board of Veterinary Practitioners (Food Animal Practice).



### 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).



### Jim Moore

Jim Moore manages the California Department of Wildlife's Shellfish Health Laboratory, located within the UC Davis Bodega Marine Laboratory. His work focuses on diseases of abalone and oysters and preventing disease introductions with animal transfers in the shellfish aquaculture industry.



# 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.



### 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.



### 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.



# 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 a particular 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.



# Zhongli Pan

Dr. Zhongli Pan is Adjunct Professor Department of Biological and Agricultural Engineering where his research focuses on infrared heating technology for various food processes, including blanching, peeling, roasting, drying, disinfection and disinfestation. He also uses ultrasonic and pulsed electric field technologies for improving food processing efficiency. Dr. Pan has served as the President of Association of Overseas Chinese Agricultural, and Vice Chairman of Editorial Board of International Journal of Agricultural and Biological Engineering.



# Michael Payne

Dr. Michael Payne is a researcher and outreach coordinator at WIFSS. Dr. Payne has worked as a veterinarian in extension, academics and private practice. He is 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.



### Jamie Pereira

Dr. Jamie Pereira is a small animal veterinarian in the Sacramento area. She graduated from Cornell University College of Veterinary Medicine in 2015, and recently earned her Masters of Public Health degree from University of Minnesota. Dr. Pereira is interested in One Health, and completed an internship in the Department of Food Safety and Zoonoses at the World Health Organization headquarters in Geneva, Switzerland.



### 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.



# Lee Pettey

Dr. Lee Pettey is Director of Animal Science Curriculum and Assessment and specializes in curriculum development and assessment in animal sciences, livestock management and evaluation, and applied animal nutrition. He leads the department in developing and implementing pedagogically sound improvements to the courses taught within the department and is interested in advancing the use of technology in animal science courses, specifically laboratory courses, as well as improving the participation rate of students in large lecture and laboratory settings.



### 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 associate with poultry health, and the interface of science and policy with respect to food safety and public health.



# 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.



### Joan Rowe

Dr. Rowe is a Professor in the Department of Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis. Dr. Rowe is a clinician on the Livestock Reproduction Herd Health & Reproduction Service at the Veterinary Medical Teaching Hospital, working primarily with dairy cattle, dairy goats, meat goats and sheep. Her research interests are in caprine arthritis-encephalitis virus epidemiology, livestock abortion, small ruminant traceability/scrapie program issues, ruminant reproductive performance and minor species/minor use medications for livestock.



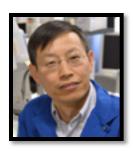
# Betsy Vaughan

Dr. Betsy Vaughan is Health Science Associate Clinical Professor in the Department Surgical and Radiological Sciences at UC Davis, School of Veterinary Medicine. Her research interests include equine abdominal ultrasound, equine musculoskeletal ultrasound, and ruminant abdominal ultrasound. She is a diplomate of the American College of Veterinary Sports Medicine and Rehabilitation. Dr. Vaughan currently serves as chief of the Large Animal Ultrasound Service.



# Crystal 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.



# Huaijun Zhou

Dr. Huaijun Zhou is Associate Professor, Chancellor's Fellow in Department of Animal Science, at University of California, Davis; and Director of USAID Feed the Future Innovation Lab for Genomics to Improve Poultry, and Director of Animal Systems Biology Analysis and Modeling Center. Dr. Zhou is a leading expert in functional genomics, avian immunology and bioinformatics.

# Staff Support



Chris Brunner Public Relations Officer, WIFSS



Jenny Chen Public Relations Assistant, WIFSS



**Nicole Nisson**Program and Financial Assistant,
WIFSS