

UCDAVIS

DEPARTMENT of ANIMAL SCIENCE



Aligning the Food System for Improved Nutrition in Animal Source Foods

MAY 14-15, 2019 UNIVERSITY OF CALIFORNIA, DAVIS











7:30 - 8:30 AM: Welcome Breakfast

Conference Center

Registration will begin in the Conference Center lobby.

8:30 - 8:40 AM: Opening Remarks

Conference Center

HELENE DILLARD

Dean, College of Agricultural and Environmental Sciences, UC Davis

ERMIAS KEBREAB

Associate Dean of Global Engagement and Director of the World Food Center, College of Agricultural and Environmental Sciences, UC Davis

CHRISTINE STEWART

Associate Professor of Nutrition and Interim Director, Program in International and Community Nutrition, UC Davis

8:40 - 9:30 AM: Keynote Address

Conference Center

Animal Source Foods Within a Sustainable Food System that Delivers on Healthy Diets

ANNA LARTEY

Director of Nutrition and Food Systems, Food and Agriculture Organization, United Nations

9:30 AM - 12:15 PM: Session 1

Conference Center

The Importance of Animal Source Foods for Human Nutrition and Health

Moderator:

KATHRYN DEWEY

Distinguished Professor Emerita of Nutrition, UC Davis

Of shores and savannahs: evolutionary aspects of animal source food nutrition

LORA IANNOTTI

Associate Dean of Public Health, Washington University, St. Louis

Nutritional and health implications of animal source foods: nutrients and bioactives

LINDSAY ALLEN

Director, USDA Western Human Nutrition Research Center

Break

Evidence of effects of animal source foods on growth, development and other health outcomes

CHRISTINE STEWART

Associate Professor of Nutrition and Interim Director, Program in International and Community Nutrition, UC Davis

Diet modelling to examine the potential of animal source foods to fill nutrient gaps for key target groups

FRANCES KNIGHT

Research Fellow, London School of Hygiene and Tropical Medicine, University of London

Panel Discussion

KATHRYN DEWEY, LORA IANNOTTI, LINDSAY ALLEN, CHRISTINE STEWART, FRANCES KNIGHT

12:15 - 2:15 PM: Lunch and Poster Session

Lunch will be available on the Moss Patio of the Walter A. Buehler

Please join us for our poster session in the lobby of the Conference Center at 1:00 PM. Abstract information is available on the back of this program.

2:15 - 4:50 PM: Session 2

Conference Center

Gaps and Barriers to Consumption of Animal Source Foods in Low-Income Populations

Moderator:

STEVE VOSTI

Adjunct Professor of Agricultural and Resource Economics, UC Davis

Dietary gap assessment for animal source foods

REINA ENGLE-STONE

Assistant Professor of Nutrition, UC Davis

Equity and barriers to animal source food consumption in low and middle income countries

ADEGBOLA ADESOGAN

Director of the Feed the Future Innovation Lab for Livestock Production, University of Florida

How affordable are animal sourced foods? Comparisons across 176 countries

DEREK HEADEY

Senior Research Fellow, International Food Policy Research Institute (IFPRI)

Scaling up animal source food production to sustainably meet growing demand in developing countries

STEVEN STAAL

Program Leader, Policy Trade and Value Chains, International Livestock Research Institute

Panel Discussion

STEVE VOSTI, REINA ENGLE-STONE, ADEGBOLA ADESOGAN, DEREK HEADEY, STEVEN STAAL

5:00 – 6:00 PM: Reception

Moss Patio, Alumni Center

6:00 - 8:00 PM: Conference Dinner

Moss Patio, Alumni Center



8:00 - 9:00 AM: Breakfast

Conference Center

9:00 AM - 12:00 PM: Session 3

Conference Center

Environmental Considerations

Moderator:

TOM TOMICH

Director, Agricultural Sustainability Institute, UC Davis

Environmental Considerations in Aquatic Systems

Having our seafood and eating it too

JACKSON GROSS

Cooperative Extension Aquaculture Specialist, UC Davis

Future-proofing aquaculture in a changing climate

ANNE TODGHAM

Associate Professor of Animal Science, UC Davis

Q&A

JACKSON GROSS, ANNE TODGHAM

Break

Conversation on Sustainability in Ruminant Animal Production

FRANK MITLOEHNER

Professor of Air Quality, UC Davis

JAMES RICKERT

Farm Director, Belcampo Farms

SARA PLACE

Senior Director of Sustainable Beef Production Research, National Cattlemen's Beef Association (NCBA)

12:00 – 1:15 PM: Lunch

Moss Patio, Alumni Center

1:15 - 4:30 PM: Session 4

Conference Center

Innovative Strategies and Supporting Public Policies to Address Challenges

Moderator:

ALISON VAN EENENNAAM

Extension Specialist in Animal Biotechnology and Genomics, UC Davis

Shock-responsive social protection: using index insurance markets in East Africa to improve nutrition and alter poverty dynamics in the face of climate change

MICHAEL CARTER

Professor and Director, BASIS Feed the Future Innovation Lab for Assets and Market Access, UC Davis

Can feed additives be part of the solution to reduce livestock's contribution to greenhouse gas emissions?

ERMIAS KEBREAB

Associate Dean of Global Engagement and Director of the World Food Center, College of Agricultural and Environmental Sciences, UC Davis

Family poultry, egg production and gender: systems, challenges and options for sustainable contributions to household nutrition security

ROBYN ALDERS

Senior Scientific Advisor for Global Livestock and Aquaculture Policy, Chatham House

Integrating nutrition education and agriculture-based small business development leads to improved child growth in rural Ghana

GRACE MARQUIS

Associate Professor of Nutrition, McGill University

Genetic enhancement of more resilient poultry in Africa

HUAIJUN ZHOU

Professor and Director, Feed the Future Innovation Lab for Genomics to Improve Poultry, UC Davis

Panel Discussion

ALISON VAN EENENNAAM, MICHAEL CARTER, ERMIAS KEBREAB, ROBYN ALDERS, GRACE MARQUIS, HUALJUN ZHOU

4:30 - 4:45 PM: Break

4:45 - 5:30 PM: Keynote Address

Conference Center

Building Bridges to Foster Food System Alignment

JENNY LESTER MOFFITT

Undersecretary, California Department of Food and Agriculture

5:30 – 7:00 PM: Networking Reception

Moss Patio, Alumni Center

KEYNOTE SPEAKERS



ANNA LARTEY

Director of Nutrition and Food Systems, Food and Agriculture Organization, United Nations

Anna Lartey is the Director of Nutrition and Food Systems Division at the Food and Agriculture Organization of the United Nations, (FAO) in Rome, Italy (2013 to present) where she leads FAO's work on Food Systems for Improved Nutrition. Prior to that, Lartey was a Professor of Nutrition at the University of Ghana (1986-2013). She pursued her doctoral studies as a Fulbright Scholar, earning a doctoral degree in international nutrition from the University of California, Davis in the United States. She obtained her MSc and BSc degrees from the University of Guelph and University of Ottawa, Canada, respectively. She worked as a researcher in Sub-Saharan

Africa for 27 years. Her research focused on maternal and child nutrition. Lartey won the University of Ghana's "Best Researcher Award for 2004." She held the International Development Research Center (IDRC, Canada) Research Chair in Nutrition for Health and Socioeconomic Development in Sub-Saharan Africa (2009-2014). She was the recipient of the Sight and Life Nutrition Leadership Award for 2014. Lartey was the President of the International Union of Nutritional Sciences (IUNS, 2013-2017). She was recently awarded a doctor of science degree, honoris causa, by McGill University in June 2018.



JENNY LESTER MOFFITT

Undersecretary, California Department of Food and Agriculture

Jenny Lester Moffitt is a fifth generation California farmer and undersecretary at the California Department of Food and Agriculture (CDFA), where she was deputy secretary from January 2015-February 2018. Appointed to these positions by Governor Jerry Brown, Moffitt works to engage stakeholders on issues that affect ranchers and farmers, including climate change, land use, water policy and food security. As a farmer and policymaker, Moffitt believes that agriculture is critically important to sustaining our environment and economy. Prior to joining CDFA, Moffitt spent 10 years as managing director at Dixon Ridge Farms, her family's organic walnut farm and processing operation. Growing up on the farm she would later help manage, Moffitt learned firsthand the importance of taking care of the land and the people that farm it – and the value in fostering economic growth and

well-being. At the farm, Moffitt oversaw the company's day-to-day operations, including sales and marketing, human resources, regulatory compliance and all aspects of financial management. While working at the farm, Moffitt also served on the Central Valley Regional Water Quality Control Board. She has been a board member for CCOF and served on the California Organic Products Advisory Committee, the Food Safety Committee of the Walnut Marketing Board and the Farmers Advisory Council for the Organic Trade Association. Previously, Moffitt worked for American Farmland Trust. A proud former 4-H and FFA member, she grew up raising animals and learning about the value of hard work and working together. Moffitt is a graduate of Brown University with a degree in economics and a graduate of the California Ag Leadership program.

SPEAKERS AND MODERATORS



ADEGBOLA
ADESOGAN
Director of the Feed the Future
Innovation Lab for Livestock
Production, University of Florida



ROBYN ALDERS Senior Scientific Advisor for Global Livestock and Aquaculture Policy, Chatham House



ALLEN
Director, USDA Western
Human Nutrition Research
Center

LINDSAY



CARTER
Director of the BASIS Feed
the Future Innovation Lab for
Assets and Market Access,
UC Davis



DEWEY
Distinguished Professor
Emerita of Nutrition, UC Davis

KATHRYN



DILLARD

Dean, College of Agricultural and Environmental Sciences, UC Davis



REINA ENGLE-STONE Assistant Professor of Nutrition, UC Davis



GROSS

Cooperative Extension
Aquaculture Specialist,
UC Davis



DEREK
HEADEY
Senior Research Fellow,
International Food Policy
Research Institute (IFPRI)



IANNOTTI
Associate Dean of Public
Health, Washington
University, St. Louis



KEBREAB
Associate Dean of Global
Engagement and Director of the
World Food Center, College of
Agricultural and Environmental
Sciences, UC Davis



FRANCES KNIGHT Research Fellow, London School of Hygiene and Tropical Medicine, University of London



GRACE
MARQUIS
Associate Professor of
Nutrition, McGill University



FRANK
MITLOEHNER
Professor of Air Quality,
UC Davis



SARA
PLACE
Senior Director of Sustainable
Beef Production Research,
National Cattlemen's Beef
Association



JAMES RICKERT Farm Director, Belcampo Farms



STAAL
Program Leader, Policy
Trade and Value Chains,
International Livestock
Research Institute

STEVEN



CHRISTINE

STEWART
Associate Professor of
Nutrition and Interim
Director, Program in
International and Community
Nutrition, UC Davis



ANNE TODGHAM Associate Professor of Animal Science, UC Davis



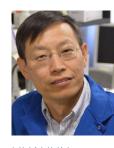
TOM
TOMICH
Director, Agricultural
Sustainability Institute,
LIC Davis



ALISON
VAN
EENENNAAM
Extension Specialist in
Animal Biotechnology and
Genomics, UC Davis



STEVE
VOSTI
Adjunct Professor of
Agricultural and Resource
Fronomics LIC Davis



HUAIJUN
ZHOU
Director of the Feed the
Future Innovation Lab for
Genomics to Improve
Poultry, UC Davis

POSTER SESSION

Selected research posters will be displayed throughout the conference in the Conference Center lobby. Please join us for our poster session on **Tuesday, May 14 from 1:00 – 2:15 PM** to interact with presenting researchers and learn more about their work.

SELECTED ABSTRACTS

#1: Choline and lutein content of village vs. commercial eggs: potential consequences for cognitive development Megan Grimes Bragg, UC Davis

#2: Habitual beef consumption, plasma TMAO, and risk factors for cardiovascular disease Kristen James, UC Davis

#3: Household livestock ownership is associated with higher consumption of animal source foods but not lower anemia among children 6 to 59 months old in Greater Accra, Ghana Nathalie J. Lambrecht, University of Michigan, Ann Arbor

#4: Egg preferences and nutrient content: a comparison of eggs from commercial and village chickens in rural Malawi
Rochelle Werner, UC Davis

#5: Whole egg consumption increases plasma choline and betaine without affecting TMAO levels and gut microbiome in overweight postmenopausal women Ruihan Zhang, UC Davis

#6: Dried caterpillar and small fish: promoting affordable, seasonally accessible animal source foods in the Democratic Republic of the Congo's Kasai Oriental Province

Jennifer Burns,
Catholic Relief Services

#7: Dietary diversity and consumption of animal source foods among rural Malawian children aged 6 to 15 months

Bess Caswell, UC Davis

#8: Nutrition at the center: the power of egg production and consumption for dietary diversity Colleen Farrell, CARE

#9: Essential amino acid intake from animal source foods In children In rural Malawi Andrew Matchado, UC Davis

#10: Striking a balance between food safety and food security: lessons learnt from resourcelimited settings in central Tanzania Elpidius Rukambile, University of Sydney

#11: Implementing the dry chain to improve safety of animal source foods

Kent J. Bradford, UC Davis

#12: The challenge of sustainable milk and meat production while reducing methane emissions from cattle enteric fermentation: the case of the Mexican cattle sector Octavio Alonso Castelán Ortega, Universidad Autónoma del Estado de México

#13: Impact of climate change on milk production in different ecosystems of Peru

Carlos A. Gomez, Universidad Nacional Agraria La Molina #14: Efficiently upcycling food leftovers and grass resources through livestock

Ollie Hal, Wageningen University

#15: Using network surveys to map livestock policy stakeholders Lacey Harris-Coble, University of Florida

#16: Increasing egg availability through smallholder business models in rural East Africa and India

Klaus Kraemer, Sight and Life

#17: Reducing childhood stunting in Guatemala's Western Highlands through the promotion of eggs Rafael Merchan, Catholic Relief Services Guatemala

#18: Non-invasive sugar content estimation using millimeter-wave Zhicheng Yang, UC Davis

#19: Addressing young stock mortality in Ethiopian smallholder farms and pastoral herds Wendi Jackson, UC Davis

MAP

For a detailed map of the entire UC Davis campus, visit campusmap.ucdavis.edu.



