



United States
Department of
Agriculture

National Institute of
Food and
Agriculture

**Agriculture and Food Research Initiative
Animal Health and Well-being Program Areas
Annual Project Director Meeting
December 1, 2017**

Chicago Marriot Downtown Magnificent Mile
540 North Michigan Avenue
Chicago, IL 60611



Friday,	December 1, 2017
7:00 am	Registration opens/Set-Up for Poster Session; Breakfast (on your own)
7:45 am	Welcome from NIFA <i>Drs. Peter Johnson and Margo Holland, National Program Leaders (Animal Health & Well-being) Desiree Abrams and Davida Tengey, Program Specialists (Animal Division)</i>
Oral Presentations (TED TALKS; 10 minutes oral + 3 minutes Q/A + 2 minute transition to next speaker)	
8:00 am	<i>Southeast Quality Milk Initiative: Controlling Mastitis And Improving Milk Quality (2013- Jan. 2018)</i> <i>Steve Oliver, University of Tennessee (AFRI Food Security Challenge)</i>
8:15 am	<i>An Integrated Extension And Education Project To Reduce Mastitis And Antimicrobial Use (2013-Jan. 2019)</i> <i>Ronald Erskine, Michigan State University (AFRI Food Security Challenge)</i>
8:30 am	<i>New Mucosal Vaccines For Aquaculture: Intranasal Vaccines For Finfish (2015- Jan. 2018)</i> <i>Irene Salinas, New Mexico State University (AFRI Animal Health & Disease Foundational)</i>
8:45 am	<i>Identification Of Genetic Factors Responsible For Establishment Of Equine Arteritis Virus Carrier State In Stallions (2013- Dec. 2018)</i> <i>Udeni Balasuriya, University of Kentucky (AFRI Food Security Challenge)</i>
9:00 am	<i>A Novel Two-Step Gas System to Allow for Humane On-Farm Euthanasia (2015- Jan. 2018)</i> <i>Don Lay, USDA-ARS (AFRI Foundational Animal Well-Being Award)</i>
9:15 am	15 minute Break (Coffee, tea, water, or soda)
9:30 am	<i>FOUR MINUTE LIGHTNING TALKS (maximum of 4 slides/project; strict timing)</i> <i>(7 presenters come to front of room prior to start.)</i> <ol style="list-style-type: none"> <i>Immune evasion of PRRS virus and a novel strategy for vaccine design (2013- August 2018)</i> <i>Dongwon Yoo, University of Illinois</i> <i>Determinants of antibody-mediated protection against Theileria equi infection (2013- Aug. 2018)</i> <i>Robert Mealey, Washington State University</i> <i>US-UK Collab: Mycobacterial Transmission Dynamics in Agricultural Systems: Integrating Phylogenetics, Epidemiology, Ecology, and Economics (2014- Aug. 2018)</i>

Yrjo Grohn, Cornell University (USDA-NIFA + NSF + NIH + BBSRS Ecology & Evolution of Infectious Disease program)

(4) **The effect of ORF1 and ORF2 gene expression on innate and adaptive immunity and protection against equine herpes virus type 1 (EHV-1) (2015- Jan. 2018)**

(5) **US-UK Collaborative: Evolution Of The High Pathogenicity Phenotype In Avian Influenza Virus (2015- Jan. 2019)**

Darrell Kapczynski, USDA-ARS-SEPRL (AFRI Animal Health & Disease Foundational)

(6) **Characterization of Influenza Diversity in Piglets and Risk Factors for Diversity (2015- Feb. 2018)**

Montserrat Torremorell, University of Minnesota

(7) **Evaluation of Acclimation and Low Stress Cattle Handling on Health and Performance of Feedlot Cattle (2015- Feb. 2018)**

Grant Dewell, Iowa State University

10:00 am

15 minute Break

10:15 am

Poster Presentations - Session A (90 minutes)

→ If you are not assigned a 10 minute TED talk, then you will present a poster in session A or B.

→ Lightning talks do posters.

11:45 pm

Interactive Networking/Coordination Session

Working Lunch (Box Lunch provided for registered awardees)

(a) INSTRUCTIONS & FORMATION OF SELF-SELECTED SUB-GROUPS

(b) DISCUSSIONS AT FOCUS AREA TABLES- All participate

Purpose: share research activities & identify potential new collaborations/ new ideas to pursue

(1) VACCINOLOGY

(2) DIAGNOSTICS

(3) IMPROVED MANAGEMENT

(including epidemiology, biosecurity, risk-assessment, disease models, surveillance...)

(4) THERAPEUTICS

(including alternatives to antimicrobials-antibiotics, anthelmintics...)

(5) Maintenance or disruption of HOMEOSTASIS

(including pathogenesis, microbiomes, innate immunity...)

(6) Breeding animals for DISEASE RESISTANCE

(7) ANIMAL WELL-BEING

(8) EVERYTHING ELSE

1:00 pm

FOUR MINUTE LIGHTNING TALKS (maximum of 4 slides/project; strict timing)

(7 presenters come to front of room prior to start.)

(1) **US-UK Collaborative: Reassembly Of Cattle Immune Gene Clusters For Quantitative Analysis (2015-Jan. 2018),**

Derek Bickhart, USDA-ARS (AFRI Foundational Animal Health & Disease Award)

(2) **Towards novel acaricide development against cattle fever tick: GPCR target validation and identification of chemical leads (2015- Sept. 2018)**

Patricia Pietrantonio, Texas A & M University

(3) **Correlates of cross-protective immunity to porcine reproductive and respiratory syndrome virus (2015- Sept. 2018)**

Hiep Vu, University of Nebraska

(4) **Novel bovine herpesvirus type 1 (BHV-1) vectored vaccine against viral infections associated with bovine respiratory disease complex (2015- Feb. 2018)**

Shafiqul Chowdury, Louisiana State University

(5) **Novel Approaches to Controlling Bovine Digital Dermatitis (2015- Feb. 2018)**

Paul Plummer, Iowa State University

- (6) **Quantification of the Prevention Efficacy of Vaccines Against Virulence Evolution of Infectious Hematopoietic Necrosis Virus in Aquaculture (2015- Jan. 2018)**
 (7) **Next Generation Mycoplasma gallisepticum Vaccine Built Using Synthetic Genomics (2015- March 2018)**
 Steven Geary, University of Connecticut

1:30pm 10 minute Break

1:40 pm	Poster Presentations - Session B (70 minutes) → If you are <u>not</u> assigned to a 10 minute TED talk, then you present a poster in session A or B. →Lightning talks do posters.
2:50 pm	10 minute Break (Coffee, tea, water, or soda)

Oral Presentations (TED TALKS; 10 minutes oral + 3 minutes Q/A + 2 minute transition to next speaker)

- 3:00 pm **Enabling Network Analysis Of Host-Pathogen Interactions (2015- March 2018)**
 Fiona McCarthy, University of Arizona (AFRI Foundational Animal Health & Disease Award)
- 3:15 pm **Whole Genome Mapping Of Disease Resistance/Susceptibility-Associated SNPs In Catfish (2015- Jan. 2018)**
 Zhanjiang (John) Liu, Syracuse University (AFRI Animal Health & Disease Foundational)
- 3:30 pm **US-UK Collaborative Research: Host Resistance To Avian Pathogenic E. Coli (2015- Jan. 2018)**
 Susan Lamont, Iowa State University (AFRI Animal Health & Disease Foundational)
- 3:45 pm **Marker Assisted Selection For Ascites Resistance In Broilers (2015- Jan. 2018)**
 Douglas Rhoads, University of Arkansas (AFRI Animal Health & Disease Foundational)

4:00 pm 15 minute Break (Coffee, tea, water, or Soda)

Oral Presentations (TED TALKS; 10 minutes oral + 3 minutes Q/A + 2 minute transition to next speaker)

- 4:15 pm **Novel Vaccines To Prevent Bovine Mastitis Caused By Staphylococcus Aureus And Streptococcus Uberis (2014- Dec. 2017)**
 Juliette Tinker, Boise State University (AFRI Foundational Animal Health & Disease Foundational)
- 4:30 pm **Molecular Attenuation Mechanisms Of Porcine Epidemic Diarrhea Virus In Pigs (2015- Jan. 2018)**
 Qihong Wang, Ohio State University (AFRI Foundational Animal Health & Disease Foundational)
- 4:45 pm **BOVINE HERPESVIRUS LATENCY UPDATES: Analysis Of Bovine Herpesvirus 1 Stress Induced Reactivation From Latency (2015- Aug. 2018) Regulation Of Latency-Reactivation Cycle By Orf2 And Beta-Catenin/Wnt Signaling Pathway (2017- July 2020)**
 Clinton Jones, Oklahoma State University (AFRI Foundational Animal Health & Disease Foundational)

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5:00 pm **UNIVERSAL FLU VACCINE BY A NOROVIRUS P PARTICLE PLATFORM (2013- Jan. 2018)**
Chang-won Lee, Ohio State University (USDA-NIFA + NIH Dual Purpose for Dual Benefit program)

5:15 pm **15 minute BREAK (Cash bar opens & available until 7 pm)**

5:30 pm **NIFA FUNDING UPDATES/ Q& A/ Impact Reporting/ Informal networking**
(1) Impact reporting (Karl Maxwell, Program Analyst, NIFA Planning, Accountability, & Reporting)
(2) NIFA funding updates & opportunities (Margo & Peter)
(3) Q/A: What else do you want to know? (All)
(4) Informal networking (All-optional)

7:00 pm **Adjourn**