



Session:	Session 5	Antimicrobial Resistance - 4	Session 10	Companion Animal Epidemiology - 2	Session 15	Diagnostic Testing - 2	Session 20	Ecology of Infectious Agents - 1	Session 25	Vaccines and Vaccinology - 4	Session 31	Immunological Responses - 2	Session 37	Vectorborne and Parasitic Disease Keynotes	Session 43	Respiratory Disease in Cattle	Session 49	Swine Immunology			
Tuesday, Dec. 5, 9:00 am	Weinroth 21	Metagenomic investigations of antimicrobial resistance in beef, pork, and broiler production systems	Swirski 47	Assessing the suitability of a North American companion animal poison control centre as a novel data source for surveillance	Sarmiento 73	Adaptation of the porcine epidemic diarrhoea virus (PEDV) fluorescent focus neutralization (FFN) assay to a high-throughput format using imaging cytometry	Mosha 99	Confirmation of Zoonotic Anthrax outbreaks in Humans in Tanzania, 2016-2017	Angelos 122	Intranasal recombinant Moraxella bovis cytotoxin subunit vaccine to prevent naturally occurring infectious bovine keratoconjunctivitis (pinkeye)	Yoo 147	Induction of Toll-like receptor 8 expression in THP-1 Cells Stimulated with Brucella abortus Recombinant Proteins, PsD and PmG.	Dryden 177	Theory and application of modern flea control	Workman 203	Molecular and epidemiological characterization of a respiratory disease outbreak in pre-weaned beef calves associated with bovine coronavirus	Poonsuk 233	Oral fluid samples can be clarified without affecting porcine epidemic diarrhoea virus (PEDV) isotype-specific (IgG, IgA) ELISA responses			
	9:15	Doster 22	Incorporating traditional bacterial culture methods and metagenomic sequencing to evaluate antimicrobial use and resistance in beef feedlot production.	Campigotto 48	Using big data and machine learning to analyze cat weight	Barrera Vaca 74	New duplex real time RT-PCR to detect Porcine Teschovirus and Sapelovirus in US pigs	Pham Quang 100	Geographic epidemiology of anthrax in Vietnam	Curtiss 123	Vaccine design to safely induce protective immunity of long duration	Abdul-Cader 148			Single stranded (ss) ribonucleic acids (RNA)-mediated antiviral response against infectious laryngotracheitis virus infection correlating with macrophage numbers and the expression of pro-inflammatory mediators	d'Offay 204	Bovine herpesvirus type 1 (BHV-1): Comparative analysis and phylogenetic relationship between the respiratory (BHV- 1.1) and genital (BHV-1.2b) strains of the virus	Mora Diaz 234	Development of a fluorescent imaging cytometry-based immunoassay for the detection of porcine epidemic diarrhoea virus (PEDV) antibodies		
	9:30	Mathys 23	Carbapenem resistant Enterobacteriaceae present in wastewater treatment plant effluent and nearby surface waters in the US	Lyons 49	Observational study to determine risk factors associated with tick exposure in dogs and their owners within Champaign and Platt counties of Illinois	Yuan 75	Development and validation of real time RT-PCR assay for the detection of Atypical Porcine Pestivirus	Donde 101	Rabies outbreak among livestock in a pastoralist community and lack of post exposure vaccine seeking behavior , southern Ethiopia	Talaat 124	Chicken immunization using polyanhydride nanovaccines	Abdul-Cader 149			In ovo delivered CpG DNA increases innate and adaptive immune cells in multiple body systems post-hatch correlating with lower infectious laryngotracheitis virus infection	d'Offay 205	Isolation of a naturally occurring vaccine/wild-type recombinant bovine herpesvirus type 1 (BHV-1) from an aborted bovine fetus.	Lavagna 235	Production and underlying mechanisms of the Streptococcus suis serotype 2-induced interleukin-1 beta (IL-1B)		
	9:45	Mollenkopf 24	Recovery of carbapenemase-producing Enterobacteriaceae from waste and surface waters	Kish 50	Leptospirosis in shelter dogs and cats in the tristate area of Kentucky, Tennessee, and Virginia	Burgess 76	Evaluation of a rapid test strip for detection of Salmonella enterica in equine fecal samples	Yoon 102	Big Data machine learning model for assessing risk of highly pathogenic avian influenza outbreak on poultry farms in Korea	Renu 125	Mucoadhesive Chitosan nanovaccine oral delivery against Salmonella in poultry	Byrne 150			Tolerated vs trained: porcine monocyte responses to beta-glucan	Heller 206	Evaluation of iodide supplementation to decrease respiratory disease in pre-weaned dairy calves	Maggioli 236	Dynamics of adaptive immune responses following Senecavirus A infection in pigs		
	10:00	Mollenkopf 25	Characterization of plasmid mediated carbapenemase-producing Enterobacteriaceae from waste and surface waters	Woodruff 51	Transfection as a safe and faster means to release the suspensory ligament during canine ovariohysterectomy	Vander Ley 77	Detection of Bovine Viral Diarrhoea Virus in stable flies (Stomoxys calcitrans) following consumption of blood from persistently infected cattle	Ahmed 103	Brucellosis in small ruminants in Mymensingh, Bangladesh	Mellata 126	Our vaccine strategies to provide broad protection against Escherichia coli and Salmonella in poultry	Casas 151			Circulating transfer RNA fragments in white blood cells associated with antibody response to bovine leukemia virus in cattle	Macaluso 178	Changing paradigms of rickettsial diseases	Petrucci 207	Characterization of Polymicrobial Biofilm Formation by Pasteurella multocida and Histophilus somni in vitro and during Bovine Respiratory Disease	Miller 237	Comparative analysis of signature genes in PRRSV-infected porcine monocyte-derived cells to different stimuli.
	10:15	Break		Break		Break		Break		Break		Break			Break		Break		Break		
	10:30	Break		Break		Break		Break		Break		Break			Break		Break		Break		
	Session:	Session 6	Antimicrobial Resistance - 5	Session 11	Epidemiology and Animal Health	Session 16	Disinfection and Biosecurity	Session 21	Ecology of Infectious Agents - 2	Session 26		Session 32			Bovine Immunology - 2	Session 38		Session 44	Respiratory Disease	Session 50	Equine Immunology
	10:45	Ballash 26	Recovery of Carbapenem resistant Enterobacteriaceae from wildlife, agriculture, and the environment in the Scioto River, Ohio Watershed	Hassebroek 52	A systematic review of the literature pertaining to health outcomes in wild and captive wolf populations worldwide	Dee 78	Evaluation of the survival of viral pathogens in contaminated feed ingredients using transboundary shipment models	Cousins 104	Using a dynamic infectious disease model to examine multiple transmission pathways for Campylobacteriosis.			Kesterson 152			Evaluation of single versus paired calf housing on acquired immunity.			Clothier 208	Validation of a real-time PCR assay for Avibacterium paragallinarum in clinical samples during an outbreak investigation	Schnabel 238	Deletion of the ORF2 gene of the neurogenic equine herpesvirus type 1 strain Ab4 reduces virulence by maintaining strong immunogenicity
	11:00	Albers 27	The efficacy of Pulsed Electric Field to reduce antimicrobial resistant bacteria in wastewater	Areda 53	Clustered data analysis in epidemiologic studies: demonstration of application of multilevel mixed model for binary outcome using data from bovine tuberculosis study in resource poor settings	Megahed 79	Evaluation of the decontamination power of aqueous ozone on various Salmonella Typhimurium contaminated surfaces	Purdy 105	The complexity and dynamics of the bovine mammary gland microbiome			Lee 153			Evaluating the interaction of stocking density and heat stress on changes in cell-mediated and humoral immunity			Willingham-Lane 209	Effects of macrolide and rifampin resistance on in vitro growth of Rhodococcus equi	Schnabel 239	Quantification of equine immunoglobulin A in serum and mucosal secretions by a fluorescent bead-based assay
11:15	Aulik 28	Multidrug resistant (MDR) Salmonella Heidelberg: an emerging problem in the dairy industry	Cabezas 54	A model of foot-and-mouth disease transmission, detection, and intervention strategies within a U.S. beef feedlot	Megahed 80	Microbial killing capacity of aqueous and gaseous ozone in different surfaces contaminated with manure	Amimo 106	Viral metagenomics analysis identify pathogens of zoonotic potential in asymptomatic pigs in East Africa			Kull 154	Effects of acute lying and sleep deprivation on metabolism and immunity of Holstein dairy cows			Ngunjiri 210	Understanding the respiratory microbiome of commercial turkeys and chicken layers	Berghaus 240	Intracellular survival and replication of Rhodococcus equi in equine macrophages stimulated with cytokines			
11:30	Vogt 29	Epidemiology of antimicrobial resistant generic Escherichia coli among free-living Canada geese in Ontario, Canada	Cabezas 55	An expert opinion survey of foot-and-mouth disease natural history and clinical manifestations in beef cattle	Skinner 81	Biofilm formation and susceptibility of E. coli O157:H7 from goats to disinfectants in vitro and in footbaths					DeKuijper 155	The potential role of Th17-like immune responses in John's disease test positive cows			Dassanayake 211	Antimicrobial activity of bovine NK-lysin-derived peptides on Mycoplasma bovis					
11:45	Grooters 30	Sequence characterization of an IncH2 plasmid with an encoded carbapenemase-gene	Wang 56	Development and validation fo a multiplex rPCR assay for the detection and differentiation of FMDV and SVV strains	Xia 82	Airborne inactivation of PRRSV by a packed bed dielectric barrier discharge non-thermal plasma					Coussens 156	Reduced antigen-specific and total IgM in plasma from cattle infected with bovine leukemia virus			Chung 212	A field-deployable automatic nucleic acid extraction and insulated isothermal RT-PCR system for sensitive on-site detection of avian influenza A virus					
12:00	Break		Break		Break		Break		Break		Break		Break		Break		Break				
12:15 - 1:30	Closing Comments and Award Presentations																				
Adjourn																					

Section	Presenter	Abstract #	Title
Bacterial Pathogenesis	Sidamonidze	P001	Whole genome sequencing and comparative genome analysis of Brucella isolates from human and animal samples from the country of Georgia
	Yoo	P002	Invasion efficiency and cytokine productions of Brucella abortus wild type and mutant strains in RAW 264.7 cells
	Boggiatto	P003	Coincidence cloning recovery of Brucella melitensis RNA from goat tissues: advancing the in situ analysis of pathogen gene expression in brucellosis
	Khalaf	P004	Characterization of the NOD-scid IL2ry-null mouse model to study the safety of B. abortus S19 ΔvjbR vaccine candidate in Brucella-induced osteoarticular disease
	Wang	P005	An effective immunofluorescence staining assay for diagnosis or treatment evaluation of human brucellosis patients
	Stranahan	P006	Towards the development of a live attenuated vaccine for canine brucellosis
	Kung'u	P007	Risk of human brucellosis among pastoralist community in Kajiado County, Kenya: a case-control study
	Hadi	P008	Detection of circulating immune-complexes in calves infected with Mycobacterium bovis
	Acharya	P009	Seroprevalence & associated risk factors of paratuberculosis among smallholder dairy farms in western Chitwan, Nepal
	Barletta	P010	Molecular genetic analysis of a large Mycobacterium avium subsp. paratuberculosis mutant bank
	Vaughn	P011	Genetic diversity and enterotoxin production profiles of Staphylococcus aureus strains from cases of bovine mastitis
	Brown	P012	Amino acid inhibition of biofilm formation by Staphylococcus aureus, Pseudomonas aeruginosa, and Listeria monocytogenes
	Sanchez Romano	P013	The pathogenic role of Moraxella bovoculi in infectious keratoconjunctivitis in semi-domesticated reindeer
	Lippolis	P014	Analysis of Escherichia coli strains associated with persistent and transient bovine mastitis and the role of colanic acid on motility and complement resistance
	Wilson-Welder	P015	Current research on digital dermatitis: lessons from the model
	Chang	P016	Molecular analysis of the interaction of LigB and tropoelastin
	Beigel	P017	Qlp19, a novel infection-associated leptospiral protein
	Verma	P018	Lipid biomarkers of immune activation in equine leptospirosis and Leptospira-vaccinated horses
	Bujold	P019	Using Actinobacillus suis to identify putative invasion determinants in other members of the genus Actinobacillus
	Brockmeier	P020	Vaccine development for protection against systemic infections with Streptococcus suis and Haemophilus parasuis in swine
	HUR	P021	Generation of the enterotoxigenic Escherichia coli vaccine candidate by lysozyme-PMAP36 fusion protein & its protection efficacy against pig colibacillosis
	Auger	P022	Role of antigen I/II in the Streptococcus suis serotype 9 virulence: Implication in the systemic infection and development of clinical disease
Epidemiology & Animal Health Economics	Denich	P023	Investigation of the association between the Streptococcus suis genome and expression of clinical disease in nursery pigs
	Kuruppu	P024	A case control study to explore the interaction between Streptococcus suis infection and respiratory viral pathogens of nursery pigs
	Kim	P025	Streptococcus suis infections: seroprevalence in community in Nam Dinh, Vietnam
	Valeris Chacin	P026	Survival analysis of protocols for eradication of Mycoplasma hyopneumoniae in swine farms
	Furutani	P027	Assessment of reproductive performance in commercial farms with different porcine reproductive and respiratory syndrome status in Japan
	Singh	P028	Quantifying porcine epidemic diarrhea virus-specific neutralizing antibodies with a rapid colorimetric assay
	Perri	P029	A case-control study investigating the early outbreak of porcine epidemic diarrhea (PED) in Canada 2014
	Coatney	P030	Prospective randomized clinical trial comparing therapeutic interventions for complete healing of advanced digital dermatitis lesions in dairy cows
	Coatney	P031	Prospective randomized clinical trial examining the use of formalin footbaths to halt disease progression in early stage digital dermatitis lesions
	Ceres	P032	The role of environmental transmission of Mycobacterium avium ssp. paratuberculosis: an individual based model
	Raabis	P033	The effect of Celmanax™ SCP on fecal pathogen shedding, health and performance of pre-weaned Holstein dairy calves

Section	Presenter	Abstract #	Title
	Kino	P034	Epidemiological investigation of the occurrence of disease on a commercial dairy farm located in temperate climate zone in Japan
	Baruch	P035	Evaluation of diagnostic tools for Bovine Respiratory Disease in calves challenged with Bovine Rhinotracheitis Virus and Mannheimia haemolytica
	Couture	P036	Identifying pathogens causing subclinical mastitis in Southeast organic dairies
	AWOSILE	P037	Whole genome sequence analysis of four fecal generic bla <sub>CMY-2</sub> producing Escherichia coli isolates from Holstein dairy calves
	Adams	P038	Extended-spectrum cephalosporin, carbapenem, and fluoroquinolone resistant coliform bacteria present on companion animal, equine, and livestock environmental surfaces
	Xia	P039	Prevalence and antimicrobial susceptibility of Campylobacter in sheep
	Wu	P040	Identification of a predominant Campylobacter coli clone in feedlot cattle in the United States
	Montanye	P041	Organic trace mineral supplementation and fecal microbiome with reduced prevalence of DD and shedding of Escherichia coli 0157 in beef cattle
	Kilonzo	P042	A One Health approach to brucellosis surveillance at the human animal interface in rural Tanzania
	Lee	P043	Biotyping and genotyping (MLVA) of Brucella isolates from different animals in Thailand
	Mkrтчhyan	P044	Brucellosis in Armenian livestock 2016
	Alusi	P045	Socio-cultural risk factors for human brucellosis in Lolgorian division, Trans Mara district, Kenya
	Sargsyan	P046	The role of awareness and rapid response during outbreaks of African swine fever
	Iglesias	P047	Spatio-temporal kriging analysis to evaluate the interface livestock-wildlife in the spread of African swine fever in the Russian Federation
	Khaita	P048	Leptospirosis in abattoir workers in Uganda: a risk assessment pilot
	Ninidze	P049	Wildlife rabies surveillance study in Georgia
	wang	P050	Using a factorial survey to characterize risk profiles of cattle herds and owners to develop a more effective policy for bovine tuberculosis surveillance
	Yoon	P051	Understanding current issues on the foot-and-mouth diseases using mathematical simulation models
	Thakur	P052	A comparison of infectious agents between hatchery-enhanced and wild out-migrating juvenile Chinook salmon from Cowichan River, British Columbia
	Paim	P053	Detection of Deltacoronavirus (δ-CoVs) in avian cloacal swabs from wild birds in the Mississippi flyway
	Pogranichniy	P054	Serological investigation of exposure to influenza A virus H3N2 in dogs and cats
	Hill	P055	Inter-observer agreement in categorization of racehorse necropsy reports
Pathobiology of Enteric Pathogens	Lu	P056	Identifying immunodominant and neutralizing epitopes from K88 fimbriae of enterotoxigenic Escherichia coli
	Leite	P057	Microbiome changes in the small intestine of newborn piglets related to enterotoxigenic Escherichia coli challenge and gilt vaccination
	Jung	P058	A novel bioinformatics pipeline for efficient metagenomics analysis; a 16s study of the microbiome of the preputial skin of bulls
	Ruddell	P059	RNAseq reveals a complex survival response by Campylobacter jejuni in close association with the ovine gallbladder mucosa in an experimental model of infection
	Shah	P060	Inter- and intra-serotype diversity in biofilm formation by the most prevalent poultry-associated Salmonella serotypes
	Kim	P061	Co-circulation of hepatitis E virus genotypes 3 & 4 in domestic pigs in Korea
	Pilch	P062	Inhibitory activity of reduced pH on Salmonella survival in calf milk replacer
Vectorborne & Parasitic Diseases	Jashiashvili	P063	A pilot seroprevalence study of tick-borne encephalitis virus in eastern Georgia
	Choi	P064	Molecular survey of Anaplasma bovis in Holstein cattle in the Republic of Korea

Section	Presenter	Abstract #	Title
Biosecurity & Biosafety	Roland	P065	Plant-based vaccine to prevent necrotic enteritis in chickens
	Katani	P066	Molecular and genomics based approaches to assess public health risks associated with bushmeat consumption in Tanzania
	Hakobyan	P067	Detection and control of nodular dermatitis in the Republic of Armenia, 2015-2016
	Olsen	P068	Inactivation of virulent Brucella species in culture and animal samples
	Parrillo	P069	"On demand" vaccine design: application to African swine fever virus
	Milwid	P070	Using modified radio frequency identification tags to quantify contact patterns within an Ontario equine facility: a validation study
Companion Animal Epidemiology	Anis	P071	Phylogenetic analyses of the wild-type strains of canine distemper virus circulating in the United States
	Abdalaal	P072	Diagnostic efficiency of some diagnostic procedures of bovine brucellosis
Ecology & Management of Foodborne Agents	Fakhr	P073	Aerotolerance of Campylobacter jejuni and Campylobacter coli isolated from various retail meat and liver products
	Shah	P074	Prevalence of extended-spectrum $\beta$ -lactamases producing Gram negative bacteria in backyard poultry flock environment in Washington State
	Morales	P075	Metagenomic analysis on the effects of chlortetracycline and ceftiofur on grower swine intestinal microbiota
	Shah	P076	Genotypically distinct lineages of Salmonella Typhimurium ST313 and ST19 are circulating in Brazil
	Liu	P077	Multiplex molecular serotyping of Salmonella using Luminex xMAP assay and Check&Trace Salmonella kit comparing with serological method
	Davidson	P078	Antimicrobial resistance trends in northern California dairy cattle Salmonella isolates, 2002-2016
	Sechrist	P079	Frequency and genus distribution of chromosomally-mediated carbapenem-resistant Enterobacteriaceae in surface water
	Pereira	P080	Impacts of feeding preweaned calves milk containing drug residues on the functional profile of the fecal microbiota
	Muñoz-Vargas	P081	Fecal microbiome of periparturient dairy cattle and associations with the onset of Salmonella shedding
Immunology	McClenahan	P082	Modulation of bovine mammary gland epithelial cell permeability and actin distribution by extracellular adenosine triphosphate
	Schnabel	P083	Identification of C-C motif chemokine ligand (CCL) production in equine peripheral blood mononuclear cells by newly generated monoclonal antibodies
	Singh	P084	Improved delivery of a HA and M2e based peptide vaccine against swine influenza viruses.
	Powell	P085	Exploring the effects of pegbovigrastim (Imrestor) therapy on experimental mastitis in Holsteins during lactation
	Paudel	P086	The use of IgGt as a diagnostic tool in foals with naturally acquired Rhodococcus equi pneumonia
	Mendez	P087	Bovine neutrophils form extracellular traps in response to the gastrointestinal parasite Ostertagia ostertagi.
	Benn	P088	Immunogenicity of a microencapsulated Bacillus anthracis Sterne strain 34F2 vaccine by subcutaneous and oral administration
	Carrisoza Urbina	P089	Atypical granuloma formation by Mycobacterium bovis in young calves
	Taylor	P090	Thermography, serum amyloid A, and prostaglandin E2 to assess inflammation in a reversible equine foot lameness model
	Lunney	P091	Development and characterization of immune reagents for swine health, vaccine, and disease studies
	Kaushik	P092	Effect of cell immortalization on TLRs expression and transcriptome profiling of TLRs and cytokine genes in bovine ileal epithelial cells stimulated with bacterial ligands
	Leistikow	P093	Canine distemper virus and parvovirus: how long does immune memory last and are we over-vaccinating?

Section	Presenter	Abstract #	Title
	Varley	P094	Investigation of circulating immunoglobulin-gamma (IgG) in swine with Severe Combined Immunodeficiency (SCID) and development of an IgG supplementation regimen
	López-Reyes	P095	Bovine viral diarrhea virus induce different interleukin-1 beta release patterns on bovine macrophages
	Merrill	P096	Evaluation of the immune response and protection in dairy cows vaccinated with immunodominant Staphylococcal surface proteins
	Tomlinson	P097	Novel multispectral cell sorting protocol and immunophenotyping panel for lymphocyte subpopulations from equine peripheral blood mononuclear cells (PBMC)
Respiratory Disease	Park	P098	Isolation and characterization of a porcine parainfluenza virus-1 associated with respiratory disease in weaned pigs
	Elaish	P099	Update of real time RT-PCR for the detection and titration of swine influenza viruses
	Liu	P100	A multiplex real-time RT-PCR assay for simultaneous detection and differentiation of Influenza D, C, B and A viruses in swine and cattle
	Lee	P101	Porcine reproductive and respiratory syndrome virus JA142 induces a protective T cell mediated immune responses in pigs
	Parrillo	P102	EpiCC: a new tool for selecting the optimal vaccine during an emerging outbreak
	Nguyen	P103	Genetic & antigenic characterization of H5N6 viruses in Vietnam 2015-2016
	Abundo	P104	Successional changes in respiratory microbiome in clinically healthy chicken layers
	Cramer	P105	The effect of lung consolidation on average daily gain until 50 days of age in preweaned group-housed dairy calves
Viral Pathogenesis	Urushadze	P106	Phylogenetic analysis of emerging zoonotic coronavirus in Georgian bats
	Yoo	P107	Inhibition of type III interferons in the intestinal epithelial cells by porcine epidemic diarrhea virus and innate immune evasion
	Lee	P108	Molecular characterization of porcine deltacoronaviruses in South Korea, 2014-2016
	Sung	P109	Efficacy test novel PRRSV live vaccine candidate
	Lee	P110	Evaluation of the efficacy of an attenuated live vaccine based on a virulent type 2 porcine reproductive and respiratory syndrome virus strain in young pigs
	Guo	P111	Double-stranded viral RNA persists in vitro and in vivo during prolonged infection of PRRSV
	Sobraske	P112	The effects of bovine herpes virus 1 on monocyte-derived dendritic cell cytokine production and surface marker expression
	Droscha	P113	Developing novel molecular diagnostic assays for bovine leukemia virus
	Osorio-Gallardo	P114	Regional seroprevalence & identification of local dominant epitopes for the development of immunodiagnostic assays
	Mitchell	P115	Surveillance for and characterization of non-primate hepacivirus in east Alabama
	Kyriakis	P116	In vitro investigation of the potential of Zika virus to infect livestock and the development of an alternative animal model
	Mohamed Abdul-Cader	P117	The effect of macrophage depletion against H4N6 low pathogenic avian influenza viral infection in chicken
	Li	P118	Development of a real-time RT-PCR assay for detecting porcine parainfluenza virus 1 infection in pigs
	Ahn	P119	Adverse fetal outcomes in pregnant rabbits experimentally infected with rabbit hepatitis E virus
	Singh	P120	Efficacy of a commercial PCV2 vaccine against the contemporary PCV2d strain