

CRWAD 2019 Program:

Sunday, November 3	Presenter Abstract #	Chicago D (5th) Title	Presenter Abstract #	Chicago E (5th) Title	Presenter Abstract #	Chicago C (5th) Title	Presenter Abstract #	Chicago H (5th) Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	Chicago F/G (5th) Title	
Time	Session 1	Population Health Featured Speakers	Session 2	Porcine Reproductive and Respiratory Syndrome	Session 3	Host Genomics	Session 4	Aquaculture - 1	Session 5	Parasitology	Session 6	Vaccines & Vaccinology - Pigs 1	
8:00 am	Featured Speaker	David Smith Systems Thinking in Human, Animal, and Environmental Health	Streaslin N 3	Repeatability of open reading frame 5 sequencing for PRRSV at different concentrations	Sanglard L 9	Association between vaginal microbiome and antibody response to PRRS vaccination in commercial gilts	Vasquez I 15	Comparative genomic analysis of <i>Vibrio anguillarum</i> isolated from infected <i>Cylopterus lumpus</i> in Newfoundland.	Needleman A 21	Safety and efficacy of copper oxide wire particles against gastrointestinal nematodes in alpacas	Gladue DP 27	Deletion of a novel gene in African swine fever virus produced complete attenuation and protection against challenge	
8:15	David Smith		Schroeder DC 4	Development of a bespoke PRRSV genomic toolkit	Hickmann FM 10	Host-genomic scan for total antibody response during a PRRSV outbreak in purebred sows	Gnanagobal H 16	Role of riboflavin synthase duplication in <i>Aeromonas salmonicida</i> pathogenesis in <i>Cylopterus lumpus</i>	Wright MC 22	Clinical trial to test efficacy of COWP in lowering GIN egg numbers in adult alpacas	Diel DG 28	A novel live attenuated vaccine protects against heterologous Senecavirus A challenge	
8:30	1		Lalonde C 5	Whole genome sequencing of PRRSV lead to a better classification of clinical cases.	Cheng J 11	Genetic parameters of disease resilience traits in wean-to-finish pigs from a natural disease challenge model	Rowley DC 17	<i>Phaeobacter inhibens</i> protects oyster larvae against bacterial infection via four disparate mechanisms of action	Busch JD 23	Evaluating genetic variation at anti-tick vaccines to improve cattle fever tick eradication	Amaral A 29	Pre-exposed pigs as a model for Chlamydia trachomatis vaccine development	
8:45	Featured Speaker		Pasternak JA 6	Maternal and fetal thyroid hormone disruption following late gestation PRRSV2 challenge	Rhoads DD 12	Validation of a SNP panel for selection for ascites resistance in broilers	Loch TP 18	Identification of the risks of emerging flavobacteria to farmed salmonids towards improved prevention and control	Karim S 24	Within the Tick Vector: Sialome switches to Sialome Shifts and Sialome Phases	Khan S 30	Protecting swine from the next pandemic: looking back and looking forward	
9:00	Danele Peck		Dunkelberger JR 7	Genomic regions associated with host response to infection with a highly pathogenic PRRSV strain	Bickhart DM 13	US/UK Collaborative Project: Reassembly of cattle immune gene clusters for quantitative analysis	Dang M 19	Susceptibility and immune response to <i>Aeromonas salmonicida</i> infection in Atlantic salmon farmed, wild and crosses	Aroian R 25	Development of a novel class of anthelmintics that cure gastrointestinal nematode parasites	Yu J 31	A Baculovirus Recombinant PEDV Spike Vaccine Enhanced PEDV replication and Diarrhea in the Vaccinated Piglets	
9:15	2	Young JE 8	Isolation and immortalization of PRRSV GP5 specific porcine B-cells	CANCELLED 14	CANCELLED	Santander J 20	<i>Aeromonas salmonicida</i> infection and vaccination in lumpfish (<i>Cylopterus lumpus</i>)	Winata F 26	Relationships between white-tailed deer, Ixodes scapularis tick, and Lyme disease in Illinois	Higgs S 32	Immunogenicity and safety of a recombinant Rift Valley fever virus MP12 vaccine containing a two-segmented genome		
9:30 - 10:00	Break		Break		Break		Break		Break		Break		
Time:	Session 7	Population Health Featured Speakers	Session 8	PRRS - Immunology and Vaccines	Session 9	Diagnostic Testing	Session 10	Aquaculture - 2	Session 11	Vaccines & Vaccinology - Chickens	Session 12	Mucosal Immunology	
10:00 am	Featured Speaker	Molly McCue Working towards precision medicine in the horse	Rodriguez-Zas SL 35	Study of pig behavior later in life associated with maternal immune activation	Henao-Diaz A 41	Detection of PRRSV-specific antibody in swine fecal samples	Purcell MK 47	Specialist and generalist viruses in Pacific salmon of the Northwest	Ghorbani A 53	Viral subpopulation-based selection reveals live attenuated influenza vaccines that induce robust immune responses	Sylte MJ 59	Host response in the cecum and cecal tonsil of turkey poult colonized by different <i>Campylobacter jejuni</i> isolates	
10:15	Molly McCue		Li Y 36	Generation of pig dendritic cells from Flt3 ligand-dependent bone marrow cultures and the infection by PRRSV1.	Henao-Diaz A 42	Commercial kit vs standard overnight protocol. What works better for PRRSV OF ELISA testing?	Loch TP 48	Flavobacterial diversity and its effect on disease in aquaculture	Verhoeven D 54	Investigation of a universal influenza vaccine in poultry using mRNA	Wiarda JE 60	Single-cell RNA sequencing identifies cell phenotypes and functions in porcine ileum	
10:30	33		Crisci E 37	Genomic characterization of PRRSV-1 infection in pulmonary innate immune cells	Cheng T 43	Influence of technician on PRRSV OF ELISA test results	Richardson BM 49	Modeling atypical <i>Aeromonas hydrophila</i> (ΔAh) dynamics in catfish aquaculture ponds of the southeastern United States	Kapczynski DR 55	Development of a novel modified live avian influenza virus vaccine based on disruption of M2/M42 gene expression	Deluco B 61	Examining the permeability of the piglet gut at birth and weaning and its impact on immune status	
10:45	Gearhart Award - Levent G 34		Salmonella enterica after metaphylactic antibiotic use in cattle followed to slaughter.	Riccio S 38	Identification of host proteins that interact with non-structural proteins-1α and -1β of prrsv-1	Chung S 44	A fully automated sample-to-answer POC/IT Central PCR system for detecting African Swine Fever virus in Vietnam	Sunyer O 50	Induction of IgM responses occurs in newly identified semi-organized lymphoid tissue of rainbow trout spleen	Chandrasekar S 56	Development of a potent MVA vectored mosaic vaccine against avian coronavirus	Kaaser T 62	The pig – A novel translational animal model for eosinophilic esophagitis
11:00			Chaudhari JM 39	Characterization of the swine immune responses to a synthetic live attenuated PRRSV vaccine candidate	Cheng T 45	Detection of pseudorabies virus antibody in serum and oral fluid specimens using a whole virus indirect IgG ELISA.	Vasquez I 51	Infection and vaccination of sablefish (<i>Anoplopoma fimbria</i>) against atypical <i>Aeromonas salmonicida</i>	Toro H 57	Suboptimal immunity in newly hatched chickens	Renu S 63	Chitosan-Salmonella nanovaccine enhances TLRs, th1 and th2 cytokines mRNA expression in layer chicken immune cells	
11:15		Jeong C 40	Evaluation of live attenuated chimeric PRRSV vaccine against Korean type 2 field strains in a reproductive model	Jirnantasak T 46	Immunohistochemical characterization and molecular diagnosis of swine melioidosis	Chukwu-Osazuwa J 52	Reverse vaccinology of <i>Piscirickettsia salmonis</i> , <i>Aeromonas salmonicida</i> , <i>Yersinia ruckeri</i> and <i>Moritella viscosa</i>	Dunn J 58	The role of vaccination on transmission of Marek's disease virus in poultry	Hall JW 64	Mucosal immunization with Biotech Vac-coll protects pigs from ETEC and induces secretory IgA in colostrum		
11:30 to 2:00	Poster Session I and Refreshments - Salon III (7th)						Poster Session I and Refreshments - Salon III (7th)						

CRWAD 2019 Program:

Time:	Session 13	CRWAD Centennial				
2:00 PM	Centennial Speaker		Centennial Celebration	Centennial Celebration	Centennial Celebration	Centennial Celebration
2:15	Annette O'Connor	Causal inference, reproducible research and research synthesis in veterinary science.				
2:40	65					
2:45	Centennial Speaker					
3:00	David Benfield	Viral diseases of swine: Lessons from past, present and future				
3:15	66					
3:30-4:00	Break	Break	Break	Break	Break	Break
Time:	Session 14	CRWAD Centennial				
4:00 PM	Centennial Speaker		Centennial Celebration	Centennial Celebration	Centennial Celebration	Centennial Celebration
4:15	Charles Czuprynski	Veterinary immunology then and now: 40th anniversary of the American Association for Veterinary Immunologists				
4:30	67					
4:45	CRWAD Council Keynote					
5:00	Yoshihiro Kawaoka	Working with deadly viruses: battling Ebola and influenza				
5:15	68					
5:30 - 6:00 pm	Break	Break	Break	Break	Break	Break
	Salon Ballroom (7th)					
6:00 - 6:30 pm	Cocktail Social Hour					
7:00 - 9:00 pm	Dedication of the Centennial CRWAD Meeting		Centennial Celebration	Centennial Celebration	Centennial Celebration	Centennial Celebration
	Proclamation from the City of Chicago					
	69	Robert Ellis The early years of CRWAD				
	70	Stuart Reid Science with impact: Rare or well done?				

CRWAD 2019 Program:

Monday, November 4	Presenter Abstract #	Chicago D (5th) Title	Presenter Abstract #	Chicago E (5th) Title	Presenter Abstract #	Chicago C (5th) Title	Presenter Abstract #	Chicago H (5th) Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	Chicago F/G (5th) Title	
Time:	Session 27	AAVI - Immunology Featured Speakers	Session 28	Antimicrobial Resistance and BRD in Cattle	Session 29	Mastitis	Session 30	Infectious Disease	Session 31	Influenza in Pigs	Session 32	Salmonella - 1	
Monday 2:00 PM 2:15 2:40 2:45 3:00 3:15	AAVI - Distinguished Immunologist	Host immunity against equine herpesvirus type 1	Coetsee J	Association between antimicrobial class for retreatment of BRD and frequency of resistant BRD pathogen isolation	Rowe SM	Selective Dry Cow Therapy on U.S. Dairy Farms: Impact on Udder Health and Productivity	Tabashsum Z	Antimicrobial effect of individual phenolic compounds against <i>Campylobacter</i>	Powell JD	Host responses at the molecular level to vaccine associated enhanced respiratory disease in swine	Levent G	Exploring evolutionary shifts from Salmonella Mbandaka to Lubbock serotypes in U.S. High Plains feedlot cattle.	
			136	142	148	154	160						
	Bettina Wagner		Harris B	Antimicrobial resistance in Mannheimia haemolytica isolates from the National Animal Health Laboratory Network.	Williams TL	Intramammary calcitriol treatment of mastitis alters indicators of redox activity and percentage of neutrophils.	Van de Walle G	The antimicrobial properties of mesenchymal stromal cells as a biological alternative to antibiotics	Gu W	Prophylactically activating iNKT cells in swine does not alter the course of an influenza infection.	Levent G	Prevalence of Non-typhoidal Salmonella in veal calf production	
			137	143	149	155	161						
	Jumper WI		Survey of cattle health and production record-keeping methods by cow-calf producers in Mississippi	Zhao F	Intramammary endotoxin challenge elicits time-dependent local and systemic effects on lactating bovine mammary glands.	Shen Z	Capsular serotypes and antimicrobial susceptibility of <i>Streptococcus suis</i> isolated from healthy pigs in China	Madrid D	Oseltamivir for influenza infection in pigs	Elfenbein JR	DMSO reduction influences Salmonella Typhimurium intestinal colonization and environmental persistence		
	138		144	150	156	162							
Doster E	Antimicrobial drug use in beef feedlots; effects on the microbiome and resistome dynamics in individual cattle	Rowe SM	Randomized controlled trial evaluating the efficacy of two commercial internal teat sealants in dairy cows	Hutchinson H	Interrelated measures of bovine leukemia virus disease infection and disease progression	Gagnon C	Genetic diversity preliminary results of swine influenza virus in Quebec, Canada, in 2018	Habing GG	Genomic characterization of Salmonella Dublin recovered from cattle in Ohio				
139	145	151	157	163									
Featured Speaker	Testing next-generation genetically engineered T cells in dogs with cancer and autoimmunity	McMurray TB	Modeling the effects of antimicrobial use policies on profitability of post-weaning beef production systems	Lippolis J	What 50 years of breeding has done to the ability of Holsteins to fight mastitis?	Zhang B	Prevalence and antimicrobial susceptibilities of bacterial pathogens in Chinese pig farms from 2013 to 2017	Jang Y	Genetic analysis and pathogenicity in mice and pigs of H1N2 influenza viruses isolated from Korean pigs in 2018	Konrad Burin R	A novel anti-nutritional strategy that inhibits the newly identified TYR and DGA metabolic pathways in Salmonella		
		140	146	152	158	164							
Nicola Mason	Assessing diversity of antimicrobial resistance phenotypes and genotypes in bovine Mannheimia haemolytica isolates	Giordano JO	Improving dairy cow health monitoring and management using automated sensors	Sporer KR	BLV Super-shedders: Insights into a longitudinal field trial	Torremorell M	Influenza transmission during the pre-weaning period: are nurse sows a risk for influenza transmission in piglets?	Gupta A	Immunomodulatory effect of butyrate on chicken macrophage cell line in presence of Salmonella Enteritidis				
141		147	153	159	165								
3:30-4:15 PM	CRWAD Business Meeting and Listening Session - Chicago D (5th)						CRWAD Business Meeting and Listening Session - Chicago D (5th)						
Time:	Session 33	AAVI - Immunology Featured Speakers	Session 34	Mobile Genetic Elements and AMR	Session 35	Virology - 1	Session 36	Sequence of Infectious Agents	Session 37	Pathogenic <i>E. coli</i>	Session 38	Swine Diseases	
Monday 4:15 PM 4:30 4:45 5:00 5:15 5:30	Featured Speaker	Bacterial infections of catfish: mechanisms of pathogen virulence, host susceptibility, and novel control measures	Gaire T	Distribution of AMR genes and bacterial taxonomic composition in contents and mucosa across the GI tract of piglets	Lasrado N	Identification of immunogenic epitopes that permit detection of antigen-specific T cell responses in CVB infections	Anderson TK	Evolutionary diversification of clade 1A.3.3.3 H1 swine influenza A viruses and zoonotic risk in the United States	Zhang H	Identification of host-adaptation genes in extraintestinal pathogenic <i>Escherichia coli</i> during infection in different hosts	Mora-Díaz J	First isolation and in vivo characterization of porcine circovirus 3	
			169	175	181	187	193						
	Benjamin Beck		Slizovskiy IB	Big data survey of Integrative Conjugative Elements and associated cargo genes across hundreds of bacterial genera	Lin S	The capsid protein of hepatitis E virus inhibits interferon induction via its N-terminal arginine-rich motif	Mubarak FA	PhyloVirus: Inferring virus reassortment and recombination, and a visualization tool for phylogenetic networks	Stanton E	Evolutionary lineages of <i>Escherichia coli</i> O157:H7 are distinguished by prophage content and <i>Stx2</i> production	Li G	Genetic characterization of <i>Streptococcus equi</i> subsp. <i>zooepidemicus</i> associated with high mortality in swine in US	
	166		170	182	188	194							
	Featured Speaker		Preliminary evaluation of a recombinant subunit vaccine for the protection of white-tailed deer (<i>Odocoileus virginianus</i>) from epizootic hemorrhagic disease	Young JG	Antimicrobial resistance genes associated with mobile genetic elements in metagenomic sequencing data	Kumar D	Metagenomic next-generation sequencing reveal presence of a novel ungulate Bocaparvovirus in alpaca	Wang L	Isolation and characterization of novel reassortant mammalian orthoreovirus from pigs with neurological signs	Valencia DM	Prevalence of non-O157 STEC in pre- and peri-harvest cattle worldwide: A systematic review and meta-analysis	Estrada AA	Serotyping and Multilocus Sequence Typing as approaches for predicting pathotype of <i>Streptococcus suis</i> in the U.S
				171	177	183	189	195					
Leela Noronha	Looft T	Salmonella sentinel for antibiotic resistant genes acquired by horizontal transfer under antimicrobial selective pressure.	Lorusso A	The envelope protein of Usutu virus attenuates WNV virulence in mice	Stanton JB	Metagenomic MiniION-based sequencing of cultured RNA viruses	Enem SI	Prevalence of ShigaToxin Producing <i>Escherichia coli</i> O157 in Cattle, Chicken and Animal Products in Abuja, Nigeria.	Estrada AA	Virulence-associated gene profiling of <i>Streptococcus suis</i> in the United States			
167	172	178	184	190	196								
Featured Speaker	Genetics and immunological functions of camelid heavy chain antibodies	Einekave E	Plasmids and genetic resistance determinants to quinolones and cephalosporins in <i>Salmonella</i> in United States swine	Das A	Development of multiplex qPCR assays for simultaneous detection of parapox, capripox and foot and mouth disease	Rhoads DD	Identification of genes for macrophage-survival in <i>Staphylococcus agnetis</i> , an agent of lameness in broilers	Amachawadi RG	Fecal prevalence of the top-7 Shiga Toxin-Producing <i>Escherichia coli</i> in finisher pigs	Milanez Preis G	Role of transportation stress on early pathogenesis of Senecavirus A in pigs		
		173	179	185	191	197							
Kevin Henry	Fakhr MK	Comparative genomics of plasmid-bearing <i>Staphylococcus aureus</i> strains isolated from various retail meats	Bird IM	Novel Insights into the Susceptibility of Chicken to Experimental Zika Virus Infection	Wang Y	Reproducible R functions to analyze WGS data from animals infected with multiple strains of Johne's disease	Lu T	GM1-binding fimbriae-toxoid MEFA of ETEC for a broadly protective vaccine against porcine post-weaning diarrhea (PWD)	Kim H	Characterization of homologous protective humoral immunity against Seneca Valley virus			
168	174	180	186	192	198								
5:45	Break	Break	Break	Break	Break	Break	Break	Break	Break	Break	Break	Break	
6:00-8:00 PM	Poster Session II -- Salon III (7th)						Poster Session II -- Salon III (7th)						

