

CRWAD 2024 Program (*denotes student competitor)

updated 1/21/2024 @3:20pm Central

<p>Saturday Jan 20 5:00-7:00 pm</p>	<p>CRWAD 3 Minute Thesis Competition -- Chicago D (5th floor)</p>
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Sunday, January 21	Presenter Abstract #	Salon II (7th) Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	Chicago C (5th) Title	Presenter Abstract #	Chicago D (5th) Title	Presenter Abstract #	Chicago E (5th) Title	Presenter Abstract #	Chicago F/G (5th) Title	
Time	Session 1	AAVI - Featured Speakers	Session 2	Antimicrobial Use & Resistance 1	Session 3	Biosecurity & Infection Control 1	Session 4	Vaccinology 1	Session 5	Epidemiology 1	Session 6	Bacteriology	
Sunday, Jan 21	8:30 am	<p>Dr. Chipster Chase, AAVI Distinguished Immunologist</p> <p>"Before there was COVID, there was Bovine Respiratory Disease"</p>	Redding L	The potential role of veterinary technicians in promoting antimicrobial stewardship	Agrawal I	Biosecurity education for livestock producers: a data-driven evaluation with google analytics	Miller J	Assessment of a subunit vaccine candidate formulated with various adjuvants against Mycoplasma gallisepticum	Hsu J*	Analyzing key factors and dynamics of African Swine Fever spread: Philippine insights	Jacobson BT*	The respiratory pathogen Mycoplasma ovipneumoniae forms biofilms that increase resistance to antibiotic treatment	
	8:45		Yudhanto S*	Assessing the challenges and factors influencing Illinois small animal veterinarians' antimicrobial use practices	Baye RS*	Enhancing food security: Assessing biosecurity attitudes and decision-making strategies of swine producers	Young A	A Platform-based approach to development and deployment of an effective vaccine to protect against an emerging disease outbreak	Adkins PRF	Using MALDI-TOF mass spectrometry to determine Staphylococcus chromogenes strain types	Inzana TJ	Characterization and resolution of bacterial polymicrobial biofilms by bovine respiratory disease pathogens	
	9:00		1	Cobo Angel C	Trends of feline Escherichia coli antimicrobial resistance over 14 years illustrate the need for judicious antimicrobial use in cats	Hall M	Biosecurity gaps within commercial swine production systems using the secure pork supply framework	Shekoni O	Development of bird flu mucosal-deliverable nanovaccine	Mendoza A	The impact of ecogeographical variables on the potential distribution of Ornithodoros spp. in Texas	Selong E	Alternative approach for antibiotic susceptibility determination in Mycoplasma biofilms
	9:15	<p>Randy Sacco</p> <p>"A tribute to our friend and colleague Dr. John D. Lippolis"</p>	Kyung SM	Whole-genome analysis of New Delhi metallo-β-lactamase (NDM)-producing Enterobacteriales from Korean companion dogs	Zia A	Testing an extended theory of planned behavior to explain cattle producers' intent to comply with FMD controls	Gamage C	Development a viral vectored vaccine against equine rotavirus A	Park A	Quantifying equine influenza transmission in Mongolia	Arubaya B	The effects of microbiota, bile acids, and pH on Campylobacter jejuni in vitro growth	
	9:30		2	Aworh MK	Detection of antimicrobial resistance in Escherichia coli isolated from retail meat products in North Carolina	Farison F*	Using Association Rule Learning algorithms to target recommendations more likely to be implemented by dairy farmers	Rasquinha M*	Mt-10 vaccine protects Diversity Outbred mice from CVB3 infection	Khan A	Non-invasive sampling strategies for the molecular surveillance of EHV-2 in naturally shedding yearling horses	Noh S	Identification of Anaplasma marginale adhesins that bind tick cells and bovine erythrocytes using phage display
	9:45		Singer R	Assessing the risk of antimicrobial resistant enterococcal infections in humans due to bacitracin usage in poultry	Zia A	Eliciting behavioral responses to alternate biosecurity risk management strategies in a stochastic game	Chowdhury S	A BoHV-2 vectored vaccine is protective against RVFV in calves and lacks nasal virus-shedding upon reactivation	Johnson T	Investigating the role of nilgai antelope in the transmission cycle of bovine babesiosis in Texas, USA	Meinen-Jochum J	Cross-colonization of segmented filamentous bacteria between broilers and layers	
10:00 - 10:30	Break												
Time:	Session 7	AAVI - Featured Speakers	Session 8	Diagnostic Testing 1	Session 9	One Health / Public Health 1	Session 10	Virology 1	Session 11	Epidemiology 2	Session 12	General Health & Physiology 1	
Sunday, Jan 21	10:30 am	<p>Dr. Adam Moeser</p> <p>"Stressed from the start: Implications of early life stress for lifelong health and disease resistance"</p>	Owczarzak E	Can we reliably quantify blood vitamin E cattle-side? A method comparison study	Sexton C	Canaries for the modern age - dogs as sentinels of human health and wellbeing	Cunningham JL*	Mechanisms of susceptibility or resistance to SARS-CoV-2 variants across animal species	Mundt C	Long-distance dispersal and spread of animal and plant diseases under increased ecological complexity	Cheng TY	Effect of benchmarking reports on the transfer of passive immunity, navel health, and hydration in surplus dairy calves	
	10:45		Bishop R	Quantification of calprotectin and myeloperoxidase in equine feces by ELISA: a validation study	Wisniewski L	Predicting human and dog Lyme disease incidence using Google Trends data	Chander V	Detection and genetic characterisation of Canine coronavirus strains in India	Ouyang L	Exploring the role of land cover on fowl cholera outbreaks in midwestern commercial poultry sites	Pace A*	Exposure to wildfire smoke PM2.5 causes pulmonary inflammation and behavioral alterations in dairy heifer calves	
	11:00		33	Herring EC*	Evaluation of a rapid test strip, PCR, and enriched aerobic culture for the detection of Salmonella in equine feces	O'Brien J*	Monitoring and predicting lyme disease trends among dogs to inform public health	Sharma S	Use of canine respiratory epithelial cells to characterize viral kinetics and immunity associated with kennel cough	Elderl B	Disease transmission dynamics and host-pathogen coevolution under varying temperatures	Barragan A	Pre-partum acetylsalicylic acid in dairy cattle: Effects on metabolism, health, and performance
	11:15	<p>Dr. Daniela Rajao</p> <p>"Host responses during influenza A virus adaptation to a new species"</p>	Meyer F	Infection status discrimination in livestock biofluids using near infrared spectroscopy analysis	Vahey G	Notable multistate outbreaks of Salmonella infections related to animal contact — United States, 2023	Parcells M	The role of exosomes in Marek's Disease Virus-mediated immunosuppression	Llanos Soto S	Importance of waterfowl migration timing on the transmission dynamics of HPAI at the waterfowl-poultry interface	Chirivi M*	Endotoxemia triggers lipolysis and modifies dairy cows' adipose tissue function	
	11:30		Gunderson T	Bayesian latent class analysis to estimate the diagnostic performance of the bull breeding soundness evaluation	Stapleton GS / Vahey G	Multistate outbreaks of salmonellosis linked to contact with backyard poultry — United States, 2015-2022	Zafar HS*	Marek's disease herpesvirus UL13, virion protein US10, and cellular LY6E in horizontal transmission	Horton V*	Japanese encephalitis virus transmission in swine populations: a rapid systematic review of the literature	Myers-Smith M*	Endocannabinoid synthesis is modulated by lipolysis pathways in dairy cows' adipose tissue	
	11:45		34	Hamond C	Optimization and application of PCR for the detection of pathogenic Leptospira in bovine semen	Hussain A*	Knowledge, attitudes, and practices of paravets about ticks and tick-borne diseases in Pakistan	Zeller M	Streamlining classification of PRRSV-2 ORF5 lineages and sublineages using Nextclade	Edache S*	Insights into Japanese Encephalitis Virus transmission: a systematic review update on vector and host competence	Dekkers J	Genetics of stress hormone concentrations in hair of healthy nursery pigs and their relationship with back test responses
Lunch - 12:00 to 1:30	Lunch Break (On Your Own)												
Lunch - 12:00 to 1:30	CRWAD Fellows Luncheon (Invitation Only)												

Time:	Session 13	CRWAD Council Keynote and Special Symposium				
1:30 PM	Opening Remarks & Introduction of CRWAD Fellows					
Sunday, Jan 21	2:00 PM	CRWAD Council Keynote Dr. Christy Petersen "Global One Health efforts to eliminate vector borne zoonoses" 65	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II
	2:15					
	2:30					
	2:45					
	3:00					
3:15	CRWAD Special Symposium Dr. Raluca Mateescu "Genomic solutions for sustainable beef production: Climate-smart cattle breeding" 66					
3:30						
3:45 to 4:15	Break	Break	Break	Break	Break	Break
Time:	Session 14	CRWAD Council Keynote and Special Symposium				
4:15 PM	CRWAD Special Symposium Dr. Ariel Ortiz-Bobea "R&D needs for U.S. agriculture in a changing climate" 67	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II	CRWAD Featured Presentations Salon II
4:30						
4:45						
5:00	CRWAD Special Symposium Dr. Zhengxia Dou "Food's journey in the last mile - managing food waste as untapped resources" 68					
5:15						
5:30						
5:45 - 6:15	Panel Discussion					
6:00-8:00 PM	"Alumni and Team Receptions" -- Denver/Houston (5th Floor) -- Univ. of Minnesota (invitation only), Kansas State, Ohio State, Texas A&M					

Monday, January 22	Presenter Abstract #	Salon II (7th) Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	Chicago C (5th) Title	Presenter Abstract #	Chicago D (5th) Title	Presenter Abstract #	Chicago E (5th) Title	Presenter Abstract #	Chicago F/G (5th) Title	
Time	Session 15	AVEPM - Schwabe Symposium	Session 16	Food Safety	Session 17	Aquaculture	Session 18	Vaccinology 2	Session 19	Immunology 1	Session 20	Host-Pathogen Interaction	
Monday, Jan 22	8:30 am	Introduction for the Calvin W. Schwabe Award Dr. Jan M. Sargeant, AVEPM Calvin Schwabe Award "What question are we trying to answer? Embracing causal inference" 69	Botero Y 71	Investigating the effects of dietary and management modifications on Salmonella enterica population in harvest-ready beef cattle	Vasquez J 77	Identification of crucial factors for seawater adaptation and pathogenesis activation in <i>A. salmonicida</i>	Liu M* 83	Optimize the PEDV recombination-resistant platform for safe, efficacious live attenuated vaccine development	Holmes C* 89	Unraveling the origin of mucosal T cells in Equine herpesvirus type 1 infection	Bimczok D 95	Pathogen delivery route impacts disease severity in <i>Mycoplasma ovipneumoniae</i> and <i>Mannheimia haemolytica</i> coinfection	
	8:45		Shah T* 72	In-water supplementation of Trans-cinnamaldehyde nanoemulsion reduces <i>Salmonella</i> colonization in broiler chickens	Hanson L 78	Virulence associated proteins of <i>Flavobacterium covaie</i> , an important channel catfish pathogen	Choudhary P 84	Encapsulation of oil-based adjuvants into nanoparticles to make semen friendly vaccine formulations	Holmes C 90	Increased secretion of antileukoprotease during the innate immune response to Equine herpesvirus type 1 infection	Airubay B 96	The effect of bile acids cultured with specific bacteria on clostridium perfringens growth	
	9:00		Sohail MN 73	Antimicrobial resistance in <i>Escherichia coli</i> and <i>Salmonella</i> isolated from a broiler supply chain and its environment	Zinnurine S* 79	Role of chitinase and RTX toxin in the pathogenesis of virulent <i>Aeromonas hydrophila</i>	Chowdhury S 85	A triple gene-deleted PRV-vectored subunit PCV2b and CSFV vaccine protects pigs against virulent CSFV challenge	Dolatyabi S 91	Chitosan-nanoparticle-based oral <i>Salmonella</i> vaccine elicits cross-protective immune response in broilers	Okon J* 97	Transcriptomic insights into liver abscesses in beef cattle: a gastrointestinal tissue perspective	
	9:15		Gaonkar P 74	Factors associated with the dynamics of antimicrobial resistance in the environment of backyard poultry	Mai H 80	Development of a PCR-based diagnostic assay for white spot syndrome virus (WSSV) in formulated aquafeed	Gaudreault N 86	Heterologous immunization with rVSV and rORFV virus vectors provide partial protection against virulent African Swine Fever Virus challenge	Diaz F 92	Polyanhydride nanoparticles trigger antiviral responses against bovine RSV in vitro and in a murine RSV model	Cao T 98	Transcriptomics analysis of the head kidney and gill of lampfish in response to <i>Moritella viscosa</i> infection	
	9:30		Reif K 75	Antimicrobial susceptibilities of enterococcus from calves treated with chlortetracycline for anaplasmosis control	Dhar A 81	A replication-deficient shrimp viral vector engineered for the delivery of therapeutic RNA	De Groot A 87	T cell epitope content comparison of a Porcine Reproductive and Respiratory Syndrome vaccine against heterologous type 2 strains	Babatunde TP* 93	Bovine epithelial and immune cells express IL-36 in response to toll-like receptor agonists and viral infection	Wang Y 99	Molecular mechanisms of enhanced resistance to avian influenza in two genetically distinct, highly inbred chicken lines	
9:45	Bradley S* 76	Identification of multi-serotype <i>Salmonella</i> populations in beef cattle samples using CRISPR-SeroSeq	Segree A* 82	Peptidoglycan hydrolases as alternatives to antibiotics to treat <i>Streptococcus</i> in fish	Lauder K* 88	Assessing the effects of maternal antibodies on a piglet post-weaning diarrhea vaccine candidate	Hada A* 94	Characterization of bovine intraepithelial T lymphocytes in the gut	Huynh TA 100	Colonization kinetics and mechanisms of <i>Listeria monocytogenes</i> in the bovine gastrointestinal tract			
10:00 - 10:30	Break		Break		Break		Break		Break		Break		
Time:	Session 21	AVEPM - Schwabe Symposium	Session 22	Antimicrobial Alternatives	Session 23	Parasitology 1	Session 24	Virology 2	Session 25	Immunology 2	Session 26	"Omics" 1	
Monday, Jan 22	10:30 am	Dr. Audrey Ruple "Do our exposure variables tell us what we think they are telling us?" 101	Bhandari M* 103	Efficacy of <i>Lactiseibacillus rhamnosus</i> GG in mitigating effects of <i>Salmonella</i> infection in chickens	Byun HR 109	Ixodid ticks from animals in Asian countries	Yadav KK* 115	Rat hepatitis E virus (HEV) cross-species infection and transmission in pigs	Legere R* 121	Selection and immunogenicity of a VapA mRNA construct for immunizing foals against <i>Rhodococcus equi</i>	Mellata M 127	Role of segmented filamentous bacteria in gut immune maturation and resistance to <i>Enterobacteriaceae</i> in Layer chickens	
	10:45		Lamichhane B 104	Evaluate the efficacy of novel probiotic strains on <i>Campylobacter</i> infection in vitro	Ji SR 110	Detection of Dabie bandavirus in ticks collected from migratory birds	Momin T* 116	Characterizing the role of cellular protein, ZFP36L1 in suppressing viral gastroenteritis in pigs	Bordin A 122	Induction of innate immunity by enteral virulent and avirulent <i>R. equi</i> in foals	Ott L 128	Role of chicken miRNA in the regulation of bacterial plasmid conjugation in vitro	
	11:00		Whitmore M* 105	Deoxycholic acid synergizes with butyrate to alleviate necrotic enteritis in broilers		111		Kim HJ* 117	Investigating cellular dynamics of porcine lung environment in PRRSV infection by single-cell RNA sequencing	Bordin A 123	Low serum activities of C1q and anti- <i>R. equi</i> IgG1 predict rhodococcal pneumonia	Thapa S 129	MAP3773c modulates key metabolic and redox pathways in <i>Mycobacterium paratuberculosis</i> under invitro iron starvation
	11:15		Dr. David Renter "Aligning valid research outcomes with stakeholder values" 102	Drider D 106	In vivo effectiveness of <i>Enterococcus faecalis</i> 14 treatment of necrotic enteritis in broiler chickens	Pietrantonio P 112	Towards novel acaricide development against cattle fever tick: GPCR chemical hits and neuropeptide physiology	Yoo D 118	PRRS virus nonstructural protein 1 restricts TRIM19 expression and promotes viral replication	Legere R 124	Nebulization of mRNA encoding a monoclonal antibody against <i>Rhodococcus equi</i> in foals	Ford H 130	Single-nuclei RNA Sequencing of adipose tissue of dairy cows with subclinical ketosis
	11:30		Shah C* 107	Effect of oral supplementation of eugenol in reducing colonization of <i>Listeria monocytogenes</i> in guinea pig model	Hussain S* 113	Assessing genetic diversity and coinfection of tickborne pathogens in small and large ruminants of Punjab, Pakistan		119	Farm infection and pathological characteristics of a NADC34-like PRRSV variant in Korea	Lima V* 125	Administration of attenuated <i>Salmonella</i> strains in ovo to induce protective immunity against bacterial pathogens	Ramirez B* 131	Longitudinal blood RNA-Seq analysis of cattle to determine the impact of vaccination and marketing on clinical BRD
11:45	Choi IY 108	Bioluminescent tagging of therapeutics in recombinant lactic acid bacteria	Oliva Chavez A 114	Comparative proteomics of salivary gland and midgut extracellular vesicles from different tick species		120	Inhibition of swine viruses by targeting viral proteins and host factors	Kluppel L* 126	MicrRNAs isolated from bovine colostrum modulate the NF- κ B pathway activation in vitro	Kincade J* 132	Persistence of prenatal epigenetic alterations into the postnatal period following fetal BVDV infection		
Lunch - 12:00 to 2:00	Lunch Break (On Your Own)												

Monday, January 22	Presenter Abstract #	Salon II (7th) Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	Chicago C (5th) Title	Presenter Abstract #	Chicago D (5th) Title	Presenter Abstract #	Chicago E (5th) Title	Presenter Abstract #	Chicago F/G (5th) Title	
Time:	Session 27	Animal Vaccinology Research Network Symposium	Session 28	Diagnostic Testing 2	Session 29	One Health / Public Health 2	Session 30	Virology 3	Session 31	Epidemiology 3	Session 32	General Health & Physiology 2	
Monday, Jan 22	133	Dr. Glenn Browning "Vaccines - critical components of effective veterinary microbial stewardship"	135	High volume testing for foreign animal diseases using SmartChip real-time PCR system	141	The role of animal migration in spreading environmentally transmitted parasites	147	Isolation and characterization of bovine coronavirus strains from dairy cows, dairy calves, and beef cattle	153	Molecular epidemiology of antimicrobial resistant pathogens in distinct broiler farms in Southeastern US	159	Feeding choices owners make: early findings from the Dog Aging Project	
			136	Detection of SARS-CoV-2 and other canine and feline respiratory pathogens using multiplex qPCR/RT-qPCR	142	Prevalence and genomic characterization of beta-lactamase-producing E. coli in migratory geese in West Texas, USA	148	Host microRNAs finetunes Bovine coronavirus virus (BCoV) tissue tropism, pathogenesis, and immune regulation	154	Mathematical modelling assessment of Salmonella Dublin transmission and control in Northeastern US heifer raisers	160	What is normal? Establishing a baseline of gut health throughout the gastrointestinal tract of feedlot cattle	
			137	Multi-locus sequence typing of Mycoplasma ovipneumoniae using multiplex PCR and rapid Nanopore sequencing	143	Genetic variation of fecal E. coli from shelter dogs, raccoons, and opossums by fimH sequence typing	149	Administration of Nrf2 agonists reduce bovine RSV replication in vitro and ameliorates RSV disease severity in mice	155	Microbiomes and resistomes of poultry farms indicate potential reservoirs and transmission of antimicrobial resistance	161	Effects of intranasal Zn and vitamin A treatments on respiratory disease challenged beef steers	
		134	Dr. Hyun Lillehoj "Progresses and challenges in the development of vaccines against intracellular intestinal parasites in poultry"	138	Mycobacterium bovis infection among cattle herds in MI and NM: application of novel pathogen specific biomarkers	144	Seroprevalence of Toxoplasma gondii in goats & associated risk factors	150	Bovine herpesvirus 1 replication and gene expression is activated by Sp1 and glucocorticoid receptor	156	Genomic analysis of the emerging pathogen Helicobacter ovis reveals new species: Candidatus Helicobacter ovis	162	Oleic acid enhances lipid accumulation and improves mitochondrial function in bovine adipocytes
				139		145	Cluster data analysis in epidemiologic studies: application of mixed effect model to predict pandemic COVID-19 outbreaks in areas with inadequate healthcare services	151	Chromatin modifications of the Bovine Alpha herpesvirus 1 genome during reactivation from latency	157	(-)-Epigallocatechin-3-gallate does not affect Lawsonia intracellularis infection of McCoy cells or swine enteroids	163	Effect of Lactobacillus acidophilus postbiotic on improving nursery pig performance and mitigating weaning stress
				140	Evaluation of new antigens for ELISA as an alternative method for the serodiagnosis of bovine leptospirosis	146	The effects of hygiene standards pre- and post-COVID shutdown on fever and diarrhea incidence in a daycare	152	Evaluating temperature effects on bluetongue virus serotype 10 and 17 coinfection in Culicoides sonorensis	158	Gearhart Award: An experimental field trial investigating the use of bacteriophage and manure slurry applications in beef cattle feedlot pens for Salmonella mitigation	164	Intestinal microbiome confers strong colonization resistance against necrotic enteritis in chicken
3:30-4:15 PM	CRWAD Business Meeting and Listening Session - Chicago Ballroom D (5th floor)												
Time:	Session 33	Animal Vaccinology Research Network Symposium	Session 34	Antimicrobial Use & Resistance 2	Session 35	Biosecurity & Infection Control 2	Session 36	Virology 4	Session 37	Epidemiology 4	Session 38	Metagenomics	
Monday, Jan 22	165	Dr. Benjamin Beck "Prevention and control of diseases in aquaculture species"	167	Efficacy of tulathromycin for treatment of respiratory disease in goats: a final step towards label approval	173	A network evaluation of human movement data across multiple swine farm system	179	The effect of co-infection of infectious bronchitis virus on virulence of AIV H9N2 in birds: An in-silico analysis	185	Combining multiple sources of movement data strengthens traceability and disease surveillance	191	Does the fecal microbiome-resistome profile differ between samples collected sequentially from the same pig?	
			168	Comparison of two methods for collecting antimicrobial usage data on large dairy farms in Ohio and California	174	Reinforcement learning for agent-based modeling of swine producer biosecurity adoption	180	Transmission of a human-origin H3N2 in pigs increases fitness of HA and NA to the swine host	186	Prevalence of EHV-1 and EHV-4 in trigeminal ganglia and retropharyngeal lymph nodes in a random horse population	192	Detection of multiple porcine viruses from oral fluid samples through TELSVirus workflow	
			169	Influence of antimicrobial metaphylaxis on health, performance, antimicrobial use, and resistance in stocker calves	175	Increasing the speed of large scale agent based models of porcine disease transfer using computational acceleration	181	Nucleoprotein reassortment enhances transmissibility of H3 C-IVA clade influenza A virus in swine	187	Tracking the prevalence and antibiotic resistance of Salmonella isolated from a Wisconsin dairy farm over a year	193	The effect of storage on bacterial viability in equine fecal microbial transfer fluid	
		166	Dr. Paul Morley "Does vaccination prevent antimicrobial resistance?"	170	Clinical outcomes of feedlot calves with non resistant and resistant respiratory disease bacteria	176	Maximizing epidemics with spatial and categorical assortativities in modular geometric contagion networks	182	Defining antagonism hierarchy of porcine epidemic diarrhea virus for live vaccines design	188	Prevalence of Salmonella Dublin in mesenteric lymph nodes of special-fed veal calves from the US and Canada	194	The impact of kit, environmental and sampling contamination on the observed microbiome of bovine milk
				171	Characterization of the oral pharmacokinetics of tylosin and its effect on the rumen microbiome	177	The North American Animal Disease Spread Model (NAADSM) as a decision-making tool for FMD outbreaks in New England	183	Development of long-read targeted-whole genome sequencing for African and classical swine fever viruses	189	Effect of Salmonella Dublin latent-carrier dry cow vaccination on bacterial shedding and intrauterine transmission	195	Enriching without culture: target-enriched metagenomics allows for strain-level characterization of M. haemolytica
				172	Measuring intake of chlortetracycline-containing mineral offered free-choice to beef cows on pasture	178	Expert consensus study regarding disease control strategies to prevent calf mortality in beef herds	184	Characterizing infectious bursal disease virus (IBDV) reassortment and antigenic drift in the USA	190	Quantifying the impact of metaphylaxis on the abundance of key members of the respiratory microbiome in cattle	196	Environmental, group, and individual sampling for characterizing the ecology of Mannheimia haemolytica in cattle
5:45	Break	Break	Break	Break	Break	Break	Break	Break	Break	Break	Break		
6:00-8:00 PM	Poster Session -- Salon III (7th floor)												

Tuesday, January 23	Presenter Abstract #	Salon II (7th) Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	Chicago C (5th) Title	Presenter Abstract #	Chicago D (5th) Title	Presenter Abstract #	Chicago E (5th) Title	Presenter Abstract #	Chicago F/G (5th) Title		
Time:	Session 39	ACVM - Featured Speakers	Session 40	"Omics" 2	Session 41	Parasitology 2	Session 42	Vaccinology 3	Session 43	Immunology 4	Session 44	General Health & Physiology 3		
Tuesday, Jan 23	8:30 AM	Dr. Linda Saif, ACVM Distinguished Microbiologist "Coronavirus: Past, present and future threats to animals and humans"	Cunha F 199	The origin of the uterine microbiome in cattle	Cox J 205	Cutaneous myiasis by Calliphoridae dipterans in dogs from Chad, Africa	McAllister H* 211	Systematic review of the impact of respiratory disease vaccination on antibody titer and health outcomes in cattle	Islam MT* 217	Exploring a mouse model for torque teno sus virus 1	Redding L 223	Effects of dietary zinc on the microbiota of the gestating cow and neonatal calf		
	8:45		Sowers C 200	Exploring the upper respiratory and fecal microbiomes in neonatal dairy calves	Dupper A 206	Concurrent therapeutic and behavior interventions reduce emerging Dracunculus medinensis worms in dogs in Chad	Angelos J 212	Bovine ocular immune responses after vaccination with Carbigen**+Emulsigen®-D- adjuvanted Moraxella bovis cytotoxin	218	224	Kesler KW	Characterizing mitochondrial function of dairy calf lymphocytes from birth to maturity		
	9:00		Filipov N 201	Unraveling the effects of novel and wild type endophyte-infected tall fescue on Angus steers' metabolome	Quintana T* 207	Characterization of ABC transporter genes in Toxocara canis using RNA-Seq	Touray BIB 213	Safety and immunogenicity of DNA vaccines directed towards avian influenza	Chirivi M 219	TLR4 activation by endotoxin activates lipolysis in bovine adipocytes	225	226	Murphy M*	Characterizing the developing fecal microbiome and resistome in foals and their dams
	9:15	Dr. Stanley Perlman "Pathogenesis of Murine and Human coronavirus infections"	Casaro S 202	Blood metabolomics and impacted cellular mechanisms during transition into lactation in dairy cows that develop metritis	Karunakaran A 208	Fibrinogen-specific Haemonchus contortus cysteine proteases	Wang WC* 214	Role of stem region of hemagglutinin and ectodomain of matrix protein 2 in protection against influenza viruses	Owczarzak E 220	Effect of isoprostane class on bovine neutrophil microbicidal functions	226	227	Fries-Craft K	Anti-IL-10 effects on broiler performance recovery following coccidiosis and necrotic enteritis challenge
	9:30		Chung M* 203	Antimicrobial resistance genes in clinical Salmonella isolates from Texas panhandle cattle	Witola WH 209	Unique glycolytic enzymes as targets for novel anti-Cryptosporidium drugs in bovine calves	Gourapura R 215	Cross-protective immunity in pigs vaccinated intranasal with mannose-chitosan nanoparticle-based influenza vaccine	Madden D 221	Immune dysregulation at the cellular, cytokine, and transcriptomic level during African swine fever virus infection	222	228	Cunha T	High energy diet does not affect body condition score in a subset of late lactation dairy cows
9:45	198	Bradshaw DJ 204	Comparison of the genetic content and arrangement between Salmonella enterica serovars Senftenberg and Infantis	Kolp M 210	Prevalence of canine intestinal parasites at public dog parks in Central Appalachia	Madapong A 216	Low-dose Epigraph vaccine provides broadly protective immunity against swine influenza A virus	Wang L 222	Live-attenuated vaccine against contemporary pandemic genotype II African swine fever virus	228	229	230	231	
10:00 - 10:30	Break		Break		Break		Break		Break		Break			
Time:	Session 45	ACVM - Featured Speakers	Session 46	Antimicrobial Use & Resistance 3	Session 47	Biosecurity & Infection Control 3	Session 48	Virology 5	Session 49	Epidemiology 5	Session 50	General Health & Physiology 4		
Tuesday	10:30 AM	Dr. Andrew Bowman "SARS-CoV-2 spillovers across the human-animal interface"	Chandra Deb L 231	Quantifying trade-offs between therapeutic efficacy and resistance dissemination for enrofloxacin dose regimens in cattle	Hamilton E 237	Molecular evaluation of multi-drug resistant Enterococcus faecium isolated from patients and surfaces of a veterinary medical center	Castillo Espinoza A* 243	Swine air-liquid interface respiratory culture system for studying Influenza A subtypes H1N1 and H3N2 coinfections	Meyers O* 249	Evaluating the occurrence of giant liver fluke and its hosts in Elk Island National Park, Canada	Horton L* 255	Economic considerations for extended feedlot helper days-on-feed - sensitivity analyses from pooled clinical trials		
	10:45		Halleran J 232	Impact of florfenicol dosing regimen on the phenotypic and genotypic resistance of enteric bacteria in steers	Dauer S 238	Assessing risk factors for contamination of needleless connector ports in veterinary intensive care units	Robert E* 244	Characterization of classical swine fever virus genotype 2 strains responsible for 2013-2018 outbreak in Colombia	Agrawal I* 250	Space-time clustering and climatic risk factors for lumpy skin disease of cattle in Uttar Pradesh, India, 2021-2022	Thompson A 256	Bayesian estimation of failed transfer of passive immunity IgG cut-offs for predicting morbidity in beef calves		
	11:00		Buckley MP 233	Evaluation of efficacy and antimicrobial resistance of two dry-cow intramammary antimicrobials in dairy goats	Wang L* 239	The effect of an electrostatic precipitator on mitigating aerosol transmission of influenza A virus in pigs	Tomlinson J 245	Naturally acquired equine parvovirus-hepatitis is associated with a wide range of hepatic lesions in horses	Burton M 251	Initial detection and spread of bluetongue virus serotype 6 (BTV-6) in wild and domestic ruminants in Colorado	Rajesh A 257	The effects of the equine mesenchymal stromal cell secretome on acute and chronic wound healing in vivo		
	11:15	Dr. Gregg Dean "Utilizing aptamer-based proteomics to investigate feline infectious peritonitis pathogenesis and discover biomarkers"	Gelalcha B 234	Antimicrobial resistance and molecular epidemiology of ESBL-producing-Klebsiella species in dairy cattle farms	Locke S 240	Biocide tolerance of Salmonella isolates recovered from cattle	Thieulent CJ 246	Identification of the ex vivo and in vitro equine arteritis virus receptors	McAttee T* 252	Comprehensive outcomes from a feedlot trial comparing ractopamine hydrochloride and lubabegron feed additives	Holzappel K 258	Alternative anti-inflammatory drugs for pain management in neonatal calves with naturally occurring diarrhea		
	11:30		Diaz GR 235	The effect of metritis treatment with ceftiofur on fecal microbiome and resistome of dairy cows	Arevalo-Mayorga A* 241	Detection of Salmonella Dublin from environmental samples by end point multiplex PCR	Xu H* 247	The role of the conserved alpha herpesvirus glycoprotein C in host-to-host transmission	Sanderson M 253	A stochastic framework to assess optimal allocation of limited vaccine doses in FMD outbreaks using game theory	Fiallo J 259	The significance of adipose tissue extracellular matrix microenvironment on adipogenesis		
11:45	230	Lizer N 236	Resistance-Enhanced variant of Campylobacter's CmeABC efflux pump utilizes distinct residues for drug binding and resistance	Gaonkar P* 242	Antimicrobial resistance and antimicrobial residues in the different stages of commercial poultry environment	Farooq M* 248	Laying hen susceptibility to infectious bronchitis virus: a comparative analysis of Massachusetts (Mass) and Delmarva (DMV) 1639 genotypes	Birdle J 254	Factors influencing Ontario dairy veterinarians' management and care of down dairy cattle	Buckley M 260	Milk and tissue residue depletion of two dry cow intramammary antimicrobials in dairy goats			
12:00	Break		Break		Break		Break		Break		Break			
12:15 - 1:30 PM	Closing Comments and Award Presentations - Chicago D (5th Floor)													