Sunday,	January 22	Presenter Abstract #	<u>Salon II (7th)</u> Title	Presenter Abstract #	<u>Chicago A/B (5th)</u> Title	Presenter Abstract #	<u>Chicago C (5th)</u> Title	Presenter Abstract #	<u>Chicago D (5th)</u> Title	Presenter Abstract #	<u>Chicago E (5th)</u> Title	Presenter Abstract #	Chicago F/G (5th) Title
Т	ime	Session 1	AVEPM - Schwabe Symposium	Session 2	General Health & Physiology 1	Session 3	Aquaculture	Session 4	Vaccinology 1	Session 5	Immunology 1	Session 6	Virology 1
	8:30 am	AVEPM Calvin Schwabe Lecture		Ziegler A 3	Dietary oligosaccharides modulate microbiome, enteric glia, and epithelial barrier function in suckling pigs	Koepper S	Diversity and community composition of the shell microbiome of American lobster (H. americanus) in Atlantic Canada	Cargnin Faccin F	Development of a modified live attenuated influenza virus vaccine against H9N2 for poultry	Bettin L 21	Kinome Analysis reveals age- dependent mechanisms of TLR7/8 induced signaling in porcine gamma- delta T Cells	Joaquin Caceres C	Antigenic map of the hemagglutinin of influenza A virus of the H9 subtype
	8:45	Veterinary epidemiology Tim Carpenter and animal health economics: the way we were	Gaire T	Effect of commingling and dietary fiber interventions on select performance metrics of suckling and weaned pigs	Peterson R	Boosting copper toxicity towards Saprolegnia parasitica	Choudhary P	Optimization of an intrauterine (i.u.) vaccine against porcine epidemic diarrhea virus (PEDV) in piglets	Wiarda J 22	Regional specialization of intraepithelial T cells and microbiota in the pig intestinal tract	Kim J 28	A panel of pig macrophage-derived cell clones that differs in ability to support various steps of PRRSV replication	
Sunday	9:00	1		Ramon Diaz Ortiz G	Rapid rumen microbiome change driven by weaning strategy on beef calves	Bernabe K	Exploring the role of T3SS gene in virulence of the oyster pathogen Vibrio coralliilyticus	Chowdhury S	A PRV Vectored PCV2/CSFV-Sub Vaccine protects pigs against lethal CSFV challenge and failed to replicate in TG	Liu H	An alternative cell culturing method to improve antigen-specific IFNg responses to Lawsonia intracellularis protein	Thieulent C	Rapid detection of equine CXCL16 allelic variants associated with equine arteritis virus persistence
Sur	9:15	AVEPM Featured Speaker	The state of play of	Llada I 6	Behavioral and physiological changes associated with poor performance in late-fall toxic fescue grazing steers	Hanson L	Elucidation of virulence-associated proteins encoded by Flavobacterium covae, an important channel catfish pathogen	Chand D	Evaluation of local innate immune responses induced by novel cyclic polyphosphazene, and other adjuvants in pigs	Kandel A	Differential expression of CD45RO and CD45RA in bovine T cells	Lorusso A	Diagnosis and characterization of a novel strain of EHDV-8 in Tunisia in 2021
	9:30	Karl Rich	veterinary economics: where we have been, where we are, and where we still need to go	Rients E	Weather impacts cattle behavior during disease challenge	Hanson L	Microcystin-LR exposure predisposes channel catfish to bacterial diseases	Khatooni 19	Employing artificial intelligent, computational simulations, and molecular cocking for developing PRRSV vaccine	Dolbec D	IgM antibodies play a major role in the elimination of Streptococcus suis	Carpenter M	Characterizing the effect of coinfection ratios on bluetongue virus reassortment in Culicoides sonorensis
	9:45	2	we still need to go	Redding L	Effects of regional limb perfusion technique antibiotic levels achieved at the target site: a meta-analysis	14		20		26		32	
				۰		14						32	
1	10:00 - 10:30		Break	0	Break	14			Break		Break	32	Break
	10:00 - 10:30 me:	Session 7	Break  AVEPM - Schwabe Symposium	Session 8	Break General Health & Physiology 2	14		Session 9	Break Vaccinology 2	Session 10	Break Immunology 2	Session 11	Break Disease Pathogensis 1
	me:	AVEPM Featured		Session 8  Thompson A		14							
	me:	AVEPM Featured		Thompson A	General Health & Physiology 2  Comparing the variation in measures of IgG and serum total protein in			Session 9  Chowdhury S	Vaccinology 2  Novel BoHV-1-vectored Rift Valley fever virus-sub vaccine induces RVFV-specific neutralizing	Session 10 Thelen K	Immunology 2  Mast cell histamine mediates intestinal inflammation to early weaning in piglets via histamine 2	Session 11  Klaeui C	Disease Pathogensis 1  Lawsonia intracellularis does not activate canonical Wnt signaling in
Ti	me: 10:30 am	AVEPM Featured Speaker	AVEPM - Schwabe Symposium  Spatial Epidemiology:	Thompson A 35 Shrestha R	General Health & Physiology 2  Comparing the variation in measures of IgG and serum total protein in neonatal calf serum  Effect of hemolysis on goat serum			Session 9  Chowdhury S  41  Angelos J	Vaccinology 2  Novel BoHV-1-vectored Rift Valley fever virus-sub vaccine induces RVFV-specific neutralizing antibodies in calves  Prevention of bovine pinkeye by intransal vaccination with	Session 10  Thelen K  47  Thoresen M	Immunology 2  Mast cell histamine mediates intestinal inflammation to early weaning in piglets via histamine 2 receptor (H2R)  Application of mRNA to bovine preputial epithelium induces expression of antibodies against	Session 11  Klaeui C  53  Kwon T	Disease Pathogensis 1  Lawsonia intracellularis does not activate canonical Wnt signaling in cell lines in vitro or in swine intestine  Gene editing of pigs to control swine
	10:30 am 10:45 11:00	AVEPM Featured Speaker Michael Ward 33	AVEPM - Schwabe Symposium  Spatial Epidemiology:	Thompson A  35  Shrestha R  36  Woodruff K	General Health & Physiology 2  Comparing the variation in measures of igG and serum total protein in neonatal calf serum  Effect of hemolysis on goat serum antibody testing by ELISA  Veterinary student proficiency and time efficiency in canine and feline			Session 9  Chowdhury S  41  Angelos J  42  Barbosa L	Vaccinology 2  Novel BoHV-1-vectored Rift Valley fever virus-sub vaccine induces RVFV-specific neutralizing antibodies in calves  Prevention of bovine pinkeye by intranasal vaccination with Moraxella Spp. antigens  Functional and structural characterization of potential immunogenic proteins of pathogenic	Thelen K 47 Thoresen M 48 Holmes C	Immunology 2  Mast cell histamine mediates intestinal inflammation to early weaning in piglets via histamine 2 receptor (H2R)  Application of mRNA to bovine preputial epithelium induces expression of antibodies against Tritrichomonas foetus  Mucosal and systemic secretion of antileukoproteinase during equine inflammation  Impact of equine mesenchymal	Session 11  Klaeui C 53  Kwon T 54  Rawal G	Disease Pathogensis 1  Lawsonia intracellularis does not activate canonical Wnt signaling in cell lines in vitro or in swine intestine  Gene editing of pigs to control swine influenza virus infections  Experimental study comparing contemporary and historical PRCV isolates with and without subsequent
Ti	10:30 am 10:45 11:00 11:15	AVEPM Featured Speaker Michael Ward 33 AVEPM Featured Speaker	AVEPM - Schwabe Symposium  Spatial Epidemiology:	Thompson A  35  Shrestha R  36  Woodruff K  37  Gunderson T	General Health & Physiology 2  Comparing the variation in measures of igG and serum total protein in neonatal calf serum  Effect of hemolysis on goat serum antibody testing by ELISA  Veterinary student proficiency and time efficiency in canine and feline ovariohysterectomies  A survey of Southeast beef veterinarians regarding methods of			Session 9  Chowdhury S  41  Angelos J  42  Barbosa L  43  Wilson H	Vaccinology 2  Novel BoHV-1-vectored Rift Valley fever virus-sub vaccine induces RVFV-specific neutralizing antibodies in calves  Prevention of bovine pinkeye by intranasal vaccination with Moraxella spp. antigens Functional and structural characterization of potential immunogenic proteins of pathogenic Leptospira  Protective efficacy of an intramuscular subunit vaccine for	Thelen K 47 Thoresen M 48 Holmes C 49 Van de Walle G	Immunology 2  Mast cell histamine mediates intestinal inflammation to early weaning in piglets via histamine 2 receptor (H2R)  Application of mRNA to bovine preputial epithelium induces expression of antibodies against Tritrichomonas foetus  Mucosal and systemic secretion of antileukoproteinase during equine inflammation  Impact of equine mesenchymal stromal cell secretome on innate immune response during wound	Session 11  Klaeui C  53  Kwon T  54  Rawal G  55  Wang B  56	Disease Pathogensis 1  Lawsonia intracellularis does not activate canonical Wnt signaling in cell lines in vitro or in swine intestine  Gene editing of pigs to control swine influenza virus infections  Experimental study comparing contemporary and historical PRCV isolates with and without subsequent IAV infection  Investigation of ribavirin resistance-associated hepatitis E virus mutations
Ti	10:30 am 10:45 11:00 11:15	AVEPM Featured Speaker Michael Ward 33 AVEPM Featured Speaker	AVEPM - Schwabe Symposium  Spatial Epidemiology: Pushing the Boundaries  Veterinary epidemiology:	Thompson A  35  Shrestha R  36  Woodruff K  37  Gunderson T  38  Uribe Corrales N  39  Kolar Q	General Health & Physiology 2  Comparing the variation in measures of igG and serum total protein in neonatal calf serum  Effect of hemolysis on goat serum antibody testing by ELISA  Veterinary student proficiency and time efficiency in canine and feline ovariohysterectomies  A survey of Southeast beef veterinarians regarding methods of bull breeding soundness evaluation  Colombian Creole Horse: Frequency			Session 9  Chowdhury S  41  Angelos J  42  Barbosa L  43  Wilson H  44  Alenton R  45  Rajeev S	Vaccinology 2  Novel BoHV-1-vectored Rift Valley fever virus-sub vaccine induces RVFV-specific neutralizing antibodies in calves  Prevention of bovine pinkeye by intranasal vaccination with Moraxella spp. antigens  Functional and structural characterization of potential immunogenic proteins of pathogenic Leptospira  Protective efficacy of an intramuscular subunit vaccine for Lawsonia intracellularis in pigs  Overcoming roadblocks for RNA-targeted antiviral therapy in shrimp through an orally-delivered shrimp	Thelen K 47 Thoresen M 48 Holmes C 49 Van de Walle G 50 Samuel B 51	Immunology 2  Mast cell histamine mediates intestinal inflammation to early weaning in piglets via histamine 2 receptor (H2R)  Application of mRNA to bovine preputial epithelium induces expression of antibodies against Tritrichomonas foetus  Mucosal and systemic secretion of antileukoproteinase during equine inflammation  Impact of equine mesenchymal stromal cell secretome on innate immune response during wound healing	Session 11  Klaeui C  53  Kwon T  54  Rawal G  55  Wang B  56  Mansfield L  57  Mazumdar V	Lawsonia intracellularis does not activate canonical Wnt signaling in cell lines in vitro or in swine intestine  Gene editing of pigs to control swine influenza virus infections  Experimental study comparing contemporary and historical PRCV isolates with and without subsequent IAV infection  Investigation of ribavirin resistance-associated hepatitis E virus mutations using genotype 3 rabbit HEV model  Lactobacillus murinus activated the aryl hydrocarbon receptor but failed to attenuate Campylobacter-induced
Sunday	10:30 am 10:45 11:00 11:15	AVEPM Featured Speaker Michael Ward 33 AVEPM Featured Speaker Mark Stevenson	AVEPM - Schwabe Symposium  Spatial Epidemiology: Pushing the Boundaries  Veterinary epidemiology:	Thompson A  35  Shrestha R  36  Woodruff K  37  Gunderson T  38  Uribe Corrales N	General Health & Physiology 2  Comparing the variation in measures of igG and serum total protein in neonatal calf serum  Effect of hemolysis on goat serum antibody testing by ELISA  Veterinary student proficiency and time efficiency in canine and feline ovariohysterectomies  A survey of Southeast beef veterinarians regarding methods of bull breeding soundness evaluation  Colombian Creole Horse: Frequency of oral and motor stereotypies  The effect supplementation with Saccharomyces cerevisiae fermentation product on mammary		Lunch Break (O	Session 9  Chowdhury S  41  Angelos J  42  Barbosa L  43  Wilson H  44  Alenton R  45  Rajeev S	Vaccinology 2  Novel BoHV-1-vectored Rift Valley fever virus-sub vaccine induces RVFV-specific neutralizing antibodies in calves  Prevention of bovine pinkeye by intranasal vaccination with Moraxella Spp. antigens  Functional and structural characterization of potential immunogenic proteins of pathogenic Leptospira  Protective efficacy of an intramuscular subunit vaccine for Lawsonia intracellularis in pigs  Overcoming roadblocks for RNA-targeted antiviral therapy in shrimp through an orally-delivered shrimp viral vector  Identification of potentially immunogenic peptide epitopes from Ehrlichia canis and Anaplasma platys	Session 10  Thelen K  47  Thoresen M  48  Holmes C  49  Van de Walle G  50  Samuel B  51	Immunology 2  Mast cell histamine mediates intestinal inflammation to early weaning in piglets via histamine 2 receptor (H2R)  Application of mRNA to bovine preputial epithelium induces expression of antibodies against Tritrichomonas foetus  Mucosal and systemic secretion of antileukoproteinase during equine inflammation  Impact of equine mesenchymal stromal cell secretome on innate immune response during wound healing  Trained immunity in bovine innate cell populations followed by subcutaneous BCG administration	Session 11  Klaeui C  53  Kwon T  54  Rawal G  55  Wang B  56  Mansfield L	Lawsonia intracellularis does not activate canonical Wnt signaling in cell lines in vitro or in swine intestine  Gene editing of pigs to control swine influenza virus infections  Experimental study comparing contemporary and historical PRCV isolates with and without subsequent IAV infection  Investigation of ribavirin resistance-associated hepatitis E virus mutations using genotype 3 rabbit HEV model  Lactobacillus murinus activated the aryl hydrocarbon receptor but failed to attenuate Campylobacter-induced colitis  Host FRXO22 enhances uptake of Brucella by macrophages promotes secretion of pro-inflammatory

Tiı	me:	Session 12	CRWAD Council Keynote and Special Symposium	CRWAD Council Keynotes and Special Symposium	CRWAD Council Keynotes and Special Symposium					
	1:30 PM	Opening Remarks	& Introduction of Fellows							
	2:00 PM	CRWAD Keynote								
	2:15	Tony Goldberg	Adrift in the Virosphere:							
lay	2:30		Animal Health in the Age of Viral Metagenomics					CRWAD Featured Presentations Chicago Ballroom D		
Sunday	2:45	59		CRWAD Featured Presentations Chicago Ballroom D						
	3:00	CRWAD Special Symposium								
	3:15	G. Cliff Lamb	The impact of COVID on agricultural research							
	3:30	60								
							5 1			
	3:45 to 4:15		Break	Break	Break	Break	Break	Break		
	3:45 to 4:15 me:	Session 13	Break  CRWAD Special Symposium	Break  CRWAD Special Symposium	Break  CRWAD Special Symposium	Break  CRWAD Special Symposium	CRWAD Special Symposium	CRWAD Special Symposium		
		Session 13  CRWAD Special Symposium								
	me:	CRWAD Special								
Tiı	me: 4:15 PM	CRWAD Special Symposium KatieRose McCullough	CRWAD Special Symposium  What happened? COVID-							
	ne: 4:15 PM 4:30	CRWAD Special Symposium KatieRose McCullough	CRWAD Special Symposium  What happened? COVID- 19 and the meat industry							
Tiı	4:15 PM 4:30 4:45	CRWAD Special Symposium KatieRose McCullough 61 CRWAD Special Symposium	CRWAD Special Symposium  What happened? COVID- 19 and the meat industry  Conducting research during a global pandemic: musings of an early career	CRWAD Special Symposium  CRWAD Featured Presentations Chicago						
Tiı	4:15 PM 4:30 4:45 5:00	CRWAD Special Symposium KatieRose McCullough 61 CRWAD Special Symposium Noelle Noyes	CRWAD Special Symposium  What happened? COVID- 19 and the meat industry  Conducting research during a global pandemic:	CRWAD Special Symposium  CRWAD Featured Presentations Chicago						
Tii	4:15 PM 4:30 4:45 5:00 5:15	CRWAD Special Symposium KatieRose McCullough 61  CRWAD Special Symposium Noelle Noyes	CRWAD Special Symposium  What happened? COVID- 19 and the meat industry  Conducting research during a global pandemic: musings of an early career	CRWAD Special Symposium  CRWAD Featured Presentations Chicago						

Monda	y, January 23	Presenter Abstract #	<u>Salon II (7th)</u> Title	Presenter Abstract #	<u>Chicago A/B (5th)</u> Title	Presenter Abstract #	<u>Chicago C (5th)</u> Title	Presenter Abstract #	<u>Chicago D (5th)</u> Title	Presenter Abstract #	<u>Chicago E (5th)</u> Title	Presenter Abstract #	Chicago F/G (5th) Title
	Time	Session 14	Animal Vaccinology Research Network Symposium	Session 15	Food Safety	Session 16	Diagnostic Testing	Session 17	Antimicrobial Use 1	Session 18	Epidemiology 1	Session 19	Biosecurity & Infection Control 1
	8:30 am	Vacccine Network Featured Speaker		Sarkar S 65	Effect of veterinary feed directive regulation on violative antibiotic residues in tissues of food animals in the US	Vogel E	Development of electrochemical sensors for on-farm detection of bovine infections	Strong K	National surveillance of antimicrobial use in Canadian feedlots to date	Welch J 83	Prevalence of Q fever antibodies in a large study of domestic goat does in the USA and associated risk factors	Germann J 89	Understanding Ontario horse owners attitudes and perceptions towards biosecurity during the COVID-19 pandemic
	8:45	Shan Lu	Heterologous prime- boost vaccination: from COVID-19 to HIV	Sodagari H 66	Comparison of antimicrobial resistance among Salmonella serovars isolated from Canadian turkey flocks, 2013-2021	Aravamuthan S	Performance evaluation for the real- time detection of digital dermatitis in dairy cattle on edge devices	Butters A	Surveillance of antimicrobial resistance in bovine respiratory disease pathogens on Canadian feedlots	Burton M 84	Prevalence and seasonality of Bluetongue Virus on the Front Range of Colorado in domestic ruminants during 2021	Agrawal I 90	Illinois veterinarians attitudes, knowledge, and practices toward biosecurity
Monday	9:00	63		Nickodem C	Natural and targeted bacteriophage treatments as a Salmonella pre- harvest mitigation technique in cattle feedlots	Ramasamy S	Antigen cartography for the determination of historical SARS-CoV 2 variant exposure in animals using serology	Smock T	Targeted metaphylaxis using rectal or infrared temperature in high-risk steers during the feedlot receiving period	Urig H 85	True prevalence and predictive value of FeLV and FIV virus test results among northern Mississippi shelter cats	Baye RS	Understanding how intention to adopt biosecurity measures affects indemnity design by United States swine producers
Š	9:15	Vacccine Network Featured Speaker		Lauder K	Prevalence of Shiga toxin genes in E. coli DNA extracted from finisher pig feces in Illinois, USA	Stanton J	MinION-based semi-targeted PCR- Seq of infectious bronchitis viruses: balancing inclusivity and sensitivity	Awosile B	Correlation between cephem and CMY-2 resistance in S. enterica and E. coli from human and food animal sources	Julianingsih D	Prevalence of Salmonella Pullorum and Gallinarum in poultry farms and potential option to control	Zia A	Discovering leverage points for enhancing biosecurity in swine production networks using agent based models
	9:30	Thanh Nguyen	Time-release microneedle- based vaccine platforms		Ex vivo evaluation of modified probiotic metabolites with prebiotic like components against Campylobacter	Shrestha R 75	Effect of swab retention in MTM on detection of ASF virus DNA in blood swab samples	Rahman MK 81	beta-lactamase genes in Enterobacteriaceae from the food animal and human surveillance programs in the United States	Riley D 87	Prevalence and contributing factors of enteric parasites in cats and dogs on intake to Missississippi shelters	Agrawal I	Understanding swine producers and veterinarians biosecurity perception and practices: a scoping review
	9:45	64		Edache S	Use of a postbiotic product to reduce Salmonella prevalence in the peripheral lymph nodes of cull dairy	Woodruff K	Sensitivity of standing fecal flotation in hookworm identification in fecal aliquots from shelter canines	Locke S	Prevalence and relatedness of Salmonella recovered from Ohio and Wisconsin livestock markets			Jasper N	I have gloves!: Food animal veterinarians perceptions of zoonotic disease risks and prevention
				70	cattle	76	anquots from sherter carines	82	and wisconsin investock markets			94	disease risks and prevention
	10:00 - 10:30		Break	70	Break	76	Break	82	Break		Break	94	Break
	10:00 - 10:30 Fime:	Session 20	Break  Animal Vaccinology Research Network Symposium	70 Session 21		76 Session 22	·	82 Session 23		Session 24	Break  Epidemiology 2	94 Session 25	·
-		Vacccine Network Featured	Animal Vaccinology Research Network Symposium		Break One Health & Public Health		Break		Break	Session 24  Van de Walle G	Epidemiology 2		Break
-	Time:	Vacccine Network	Animal Vaccinology Research	Session 21 Chakraborty S	Break  One Health & Public Health  A systematic review of impacts of cattle on human risk of exposure to	Session 22  Loving C	Break  Antimicrobial Alternatives  Alternatives to antibiotics: neonatal immunomodulation to improve	Session 23  Madrid DM	Break  Immunology 3  A single cell analysis of pulmonary leukocytes in pigs  Annotating cell transcriptomes in four immune tissues to establish a porcine single-cell immune atlas	Van de Walle G	Prevalence and pathology of equine parvovirus-hepatitis in racehorses from New York racetracks  Chronic hepatitis in horses with Equine Hepacivirus infection	Session 25 Sun X	Break  Disease Pathogenesis 2  The role of bile metabolism disorder and inflammation on chicken necrotic
	10:30 am	Vacccine Network Featured Speaker	Animal Vaccinology Research Network Symposium  Emerging technology and potential applications in	Session 21  Chakraborty S  97  Jackson E	Break  One Health & Public Health  A systematic review of impacts of cattle on human risk of exposure to vector-borne diseases  Invasive plants as risk factors for tickborne disease in humans and	Session 22  Loving C  103  Zeng X	Break  Antimicrobial Alternatives  Alternatives to antibiotics: neonatal immunomodulation to improve disease resistance in animals  Inhibition of protease RseP sensitizes polymyain resistant Gram-negative	Session 23  Madrid DM  109  Tuggle C	Break  Immunology 3  A single cell analysis of pulmonary leukocytes in pigs  Annotating cell transcriptomes in four immune tissues to establish a	Van de Walle G 115 Tomlinson J	Prevalence and pathology of equine parvovirus-hepatitis in racehorses from New York racetracks  Chronic hepatitis in horses with	Sun X 121 Cao L	Break  Disease Pathogenesis 2  The role of bile metabolism disorder and inflammation on chicken necrotic enteritis  Oral administration of microplastic polystyrene increased incidence of
Monday	10:30 am	Vacccine Network Featured Speaker Michael Roof	Animal Vaccinology Research Network Symposium  Emerging technology and potential applications in	Session 21  Chakraborty S  97  Jackson E  98  Johnson T	Break  One Health & Public Health  A systematic review of impacts of cattle on human risk of exposure to vector-borne diseases  Invasive plants as risk factors for tickborne disease in humans and livestock  Ecology of avian Escherichia coli across niches and in response to	Loving C  103  Zeng X  104  Zhang G	Break  Antimicrobial Alternatives  Alternatives to antibiotics: neonatal immunomodulation to improve disease resistance in animals  Inhibition of protease RseP sensitizes polymyain resistant Gram-negative bacteria  Epigenetic regulation of host defense	Session 23  Madrid DM  109  Tuggle C  110  Yoo D	Break  Immunology 3  A single cell analysis of pulmonary leukocytes in pigs  Annotating cell transcriptomes in four immune tissues to establish a porcine single-cell immune atlas  Nonstructural protein 1-beta of PRRSY suppresses protein expression and promotes viral	Van de Walle G 115 Tomlinson J 116 Johnson W	Prevalence and pathology of equine parvovirus-hepatitis in racehorses from New York racetracks  Chronic hepatitis in horses with Equine Hepacivirus infection  A survey of gastrointestinal nematodes (GIN) in North American bison (Bison bison), a 2023	Sun X 121 Cao L 122 Alenezi T	Break  Disease Pathogenesis 2  The role of bile metabolism disorder and inflammation on chicken necrotic enteritis  Oral administration of microplastic polystyrene increased incidence of woody breast myopathy in broilers  Cloning and expressing microbial bile acid metabolizing enzymes to reduce
	10:30 am	Vacccine Network Featured Speaker Michael Roof 95	Animal Vaccinology Research Network Symposium  Emerging technology and potential applications in	Session 21  Chakraborty S  97  Jackson E  98  Johnson T  99  Butters A	Break  One Health & Public Health  A systematic review of impacts of cattle on human risk of exposure to vector-borne diseases  Invasive plants as risk factors for tickborne disease in humans and livestock  Ecology of avian Escherichia coli across niches and in response to vaccination  Genetic relatedness and antimicrobial resistance carriage of Escherichia coli isolates in a One	Loving C  103  Zeng X  104  Zhang G  105  Cornejo S	Break  Antimicrobial Alternatives  Alternatives to antibiotics: neonatal immunomodulation to improve disease resistance in animals  Inhibition of protease RseP sensitizes polymyain resistant Gram-negative bacteria  Epigenetic regulation of host defense peptide synthesis  Bovine Myeloid Antimicrobial Peptide-28 (BMAP-28) MIC for Mannheimia haemolytica and	Session 23  Madrid DM  109  Tuggle C  110  Yoo D  111  Su CM	Break  Immunology 3  A single cell analysis of pulmonary leukocytes in pigs  Annotating cell transcriptomes in four immune tissues to establish a porcine single-cell immune atlas  Nonstructural protein 1-beta of PRRSV suppresses protein expression and promotes viral replication  Immune outcome of IFN suppression negative and NF kappa B activation-negative PRRSV infection in vitro	Van de Walle G  115  Tomlinson J  116  Johnson W  117  Chen SY	Prevalence and pathology of equine parvovirus-hepatitis in racehorses from New York racetracks  Chronic hepatitis in horses with Equine Hepacivirus infection  A survey of gastrointestinal nematodes (GIN) in North American bison (Bison bison bison), a 2023 update  Survey about Anaplasma marginale on grazing beef operations in	Sun X 121 Cao L 122 Alenezi T 123 Jarosinski K	Break  Disease Pathogenesis 2  The role of bile metabolism disorder and inflammation on chicken necrotic enteritis  Oral administration of microplastic polystyrene increased incidence of woody breast myopathy in broilers  Cloning and expressing microbial bile acid metabolizing enzymes to reduce Clostridium perfringens infection  The role of the conserved alphaherpesvirus glycoprotein C in
	10:30 am 10:45 11:00	Vacccine Network Featured Speaker Michael Roof 95	Animal Vaccinology Research Network Symposium  Emerging technology and potential applications in animal health	Session 21  Chakraborty S  97  Jackson E  98  Johnson T  99  Butters A	Break  One Health & Public Health  A systematic review of impacts of cattle on human risk of exposure to vector-borne diseases  Invasive plants as risk factors for tickborne disease in humans and livestock  Ecology of avian Escherichia coli across niches and in response to vaccination  Genetic relatedness and antimicrobial resistance carriage of Escherichia coli isolates in a One	Loving C  103  Zeng X  104  Zhang G  105  Cornejo S  106  Vinayamohan P	Break  Antimicrobial Alternatives  Alternatives to antibiotics: neonatal immunomodulation to improve disease resistance in animals  Inhibition of protease RseP sensitizes polymyain resistant Gram-negative bacteria  Epigenetic regulation of host defense peptide synthesis  Bovine Myeloid Antimicrobial Peptide-28 (BMAP-28) MIC for Mannheimia haemolytica and combination with florfenicol  Impact of sublethal biocide exposure on antibiotic resistance gene	Session 23  Madrid DM  109  Tuggle C  110  Yoo D  111  Su CM  112  Franco C	Break  Immunology 3  A single cell analysis of pulmonary leukocytes in pigs  Annotating cell transcriptomes in four immune tissues to establish a porcine single-cell immune atlas Nonstructural protein 1-beta of PRRSV suppresses protein expression and promotes viral replication  Immune outcome of IFN suppression negative and NF kappa B activation-negative PRRSV infection in vitro and in vivo  Dietary zinc and BRD effects on intracellular zinc concentration and transporter expressions in bovine	Van de Walle G  115  Tomlinson J  116  Johnson W  117  Chen SY  118  de Souza Ferreir  L	Prevalence and pathology of equine parvovirus-hepatitis in racehorses from New York racetracks  Chronic hepatitis in horses with Equine Hepacivirus infection  A survey of gastrointestinal nematodes (GIN) in North American bison (Bison bison bison), a 2023 update  Survey about Anaplasma marginale on grazing beef operations in California  a Apparent prevalence of hemotrophic mycoplasma infection	Sun X 121 Cao L 122 Alenezi T 123 Jarosinski K 124 Jarosinski K	Break  Disease Pathogenesis 2  The role of bile metabolism disorder and inflammation on chicken necrotic enteritis  Oral administration of microplastic polystyrene increased incidence of woody breast myopathy in broilers  Cloning and expressing microbial bile acid metabolizing enzymes to reduce Clostridium perfringens infection  The role of the conserved alphaherpesvirus glycoprotein C in host-to-host transmission  Mareks disease herpesvirus UL13, virion protein US10, and cellular LYGE

Monda	y, January 23	Presenter Abstract #	<u>Salon II (7th)</u> Title	Presenter Abstract #	Chicago A/B (5th) Title	Presenter Abstract #	<u>Chicago C (5th)</u> Title	Presenter Abstract #	<u>Chicago D (5th)</u> Title	Presenter Abstract #	<u>Chicago E (5th)</u> Title	Presenter Abstract #	<u>Chicago F/G (5th)</u> Title
1	Time:	Session 26	ACVM - Featured Speakers	Session 27	Omics 1	Session 28	Modeling, Methods, & Study Design	Session 29	Vaccinology 3	Session 30	Epidemiology 3	Session 31	Biosecurity & Infection Control 2
	2:00 PM	ACVM - Distinguished Microbiologist	Development of "intelligently-designed"	Young J 129	Microbial community structure of the gastrointestinal tract of beef cattle in relation to liver abscess occurrence	Machado V	Predictive models for metritis cure using farm collected data and hematological variables measured at diagnosis	Aarattuthodi S	Efficacy determination of an attenuated vaccine against channel catfish virus	Cummings K	Novel approaches to define Salmonella Dublin transmission dynamics and improve disease control in dairy cattle	Leon I	Evaluation of mitigation strategies to reduce bioaerosols in cattle feedyards
	2:15	Thomas Inzana	vaccines based on understanding of bacterial pathogenesis and host response	Pinnell L 130	Fusobacteria or Bacteroidetes? Microbial communities in bovine liver abscesses arise from throughout the gut	Prim J 136	Application of behavior data to predict metritis self-cure and treatment failure in dairy cows	Lara H 142	Field trial experience with an intranasal nonpathogenic novel vaccine against PRRS	Barua S 148	Serological and molecular survey of SARS-CoV-2 in deer in Alabama, USA	Wang L 154	Preventing particle bounce while preserving virus viability to improve the characterization of virus-laden aerosols
Monday	2:30	127		Meneguzzi M	Simultaneous long-read sequencing of porcine viral pathogens from field samples through TELSVirus workflow	Wang C 137	Connecting disjoint trial networks with a new trial: optimizing the estimation of a comparative effect in a NMA	Ferm J 143	A modified live vaccine protects cattle against Anaplasma marginale transmitted by Dermacentor variabilis ticks	Hite J 149	Effects of feed withdrawal prior to transport on pathogen transmission and virulence evolution.	Alvarez- Norambuena J 155	Evaluation of hand sanitation protocols on detection of swine influenza in hands of workers
Š	2:45	ACVM Featured Speaker	Inflammation and innate	Gaire T	Pooled piglet fecal samples accurately reflect individual-level fecal microbial composition	Tamm S	Surveillance of Mannheimia haemolytica through novel group- based sampling and molecular detection	Mahmoud A	Role of rel, regulator of the stringent response, in establishment of persistent infections by mycobacteria	Burgess B	Are we teaching too much? Epidemiology education in the veterinary curricula	Chakma S	Factors influencing the avian influenza A/HS environmental contamination at live bird markets in Dhaka, Bangladesh
	3:00	Jeff Caswell	immune tolerance in the pathogenesis of bovine respiratory disease and Mycoplasma bovis	Wuest NB	Is sequencing of pooled nasal swab samples effective for characterizing DNA for microbial community structures?	138		144 Lima V 145	Self-destructing attenuated Salmonella strains: Innate immunity activators to improve food safety and animal health	Locke	Mark Gearhart Award: Prevalence and sources of Salmonella lymph node infection in special-fed veal calves	156 Smith R	Optimizing testing frequency for infectious disease control
	3:15	128	pneumonia	Doster E	Updates to the MEGARes v3.0 database and its associated AMR++ bioinformatic pipeline for resistome analysis			Petro-Turnquist E	An adenoviral-vectored epigraph vaccine induces durable immune responses against H3 Influenza Virus in swine	151		Nemechek K	Animal contact outbreaks of Salmonella and Shiga Toxin-Producing Escherichia coli - United States, 2017 - 2021
	3:30-4:15 PM				С	RWAD Busi	ness Meeting and Listenin	g Session - 0	Chicago Ballroom E (5th)				
1	Time:	Session 32	ACVM - Featured Speakers	Session 33	Omics 2			Session 34	Antimicrobial Use 2	Session 35	Immunology 4	Session 36	Virology 2
	4:15 PM	ACVM Featured Speaker		Slizovskiy I 161	Showering as a biosecurity intervention to disrupt work-related shifts in swine worker skin microbiomes			McClurg M	Does antimicrobial-free beef production reduce transmission of resistant bacteria to human consumers?	Hong S	Altered cytokine and gene expression in vitamin A deficient mice after RSV infection and vitamin A supplementation	Kim Y 179	Inhibition of protein glycosylation blocks PRRSV and swine influenza virus replication
	4:30	Jose Perez-Casal	Challenges on developing a vaccine for protection against Mycoplasma bovis respiratory disease in	Green M	Transcriptome analysis of beef cattle reveals influence of marketing on bovine respiratory disease risk			Murphy M	Ionophore use in food animal production and potential impacts on human and animal health: a scoping review	Chitko-McKown (	First description of LPS-treated, pen- housed feeder cattle as a model of bacterial infection	Cardenas M	Multiple transmissions of human influenza A virus in pigs leads to improved replication
Monday	4:45	159	cattle	McDaneld T	Characterization of the respiratory microbiome and virome associated with Bovine Respiratory Disease Complex			Magiri R 169	Trends of human and veterinary antimicrobial consumption in Fiji from a one health perspective	Jacobson B	Impaired alveolar macrophage phagocytosis contributes to bacterial persistence in M. ovipneumoniae infected sheep	Zabiegala A 181	Entry of pseudoviruses carrying SARS- CoV and SARS-CoV-2 5 protein into cells expressing human and animal ACE2
Σ	5:00	ACVM Featured Speaker	Immunomodulation	Wynn E 164	Whole genome sequencing of Moraxella bovis strains reveals two genotypes with different genetic determinants			Singer R 170	On-farm monitoring of antimicrobial use and resistance in U.S. broiler production: 2020-2021	Fries-Craft K 176	Performance and immunometabolic responses to assess dietary anti-IL- 10 on enteric disease outcomes in chickens	Kincaid J 182	BVDV compromises fetal immune organ development leading to post- natal health consequences
	5:15	Jodi McGill	strategies to prevent and reduce bovine respiratory syncytial virus infection in preweaned calves	Sommer A	Stable flies harbor a low complexity microbiota dominated by mastitis-associated bacteria					Touchard L	Multicolor flow cytometry panels for immunophenotyping pig leukocytes	Hemida M 183	MicroRNAs as genetic markers for bovine coronavirus (BCoV) infection
	5:30	160	preweatieu caives	Roozitalab A 166	Complete genome sequence of a novel Canine Distemper Virus strain, Isolated from a Fox in United States					Holmes C	Identification of granulysin in the mucosal immune response to Equine herpesvirus type 1 (EHV-1) infection	Yadav K 184	Expanding host range and cross species transmission potential of Rocahepevirus ratti
	5:45		Break		Break		Break		Break		Break		Break
	6:00-8:00 PM						Poster Session	Salon III (7t	h)				

Tuesday, Janua	iry 24	Presenter Abstract #	<u>Salon II (7th)</u> Title	Presenter Abstract #	<u>Chicago A/B (5th)</u> Title	Presenter <u>Chicago C (5th)</u> Abstract # Title	Presenter Abstract #	<u>Chicago D (5th)</u> Title	Presenter Abstract #	<u>Chicago E (5th)</u> Title	Presenter Abstract #	<u>Chicago F/G (5th)</u> Title
Time:		Session 37	AAVI - Featured Speakers	Session 38	Preventive Medicine		Session 39	Antimicrobial Use 3	Session 40	Epidemiology 4	Session 41	Disease Pathogenesis 3
8:	:30 AM	AAVI - Distinguished Immunologist		Rodriguez Z 187	Use of reticuloruminal temperature to predict clinical mastitis in dairy cows challenged with Streptococcus uberis		Gaonkar P	Dissemination of antibiotic resistance genes across the food chain of commercial antibiotic-free poultry farms	Ekakoro J 199	An investigation of the differential diagnoses of African swine fever in pigs slaughtered in central Uganda	Elderd B	Host-pathogen coevolution in a changing environment: Pathogen exposure and host performance
	8:45	Amelia Woolums	Applied research to enhance resistance to respiratory disease in cattle	Pietrantonio P	Towards novel acaricide development against cattle fever tick: GPCR chemical hits and neuropeptide physiology		Young J	SNP profiling of poultry litter resistomes following in-feed oxytetracycline administration	Ekakoro J 200	Clinical and pathological presentation of African swine fever in pigs slaughtered in central Uganda	Filipov N	Rumen dynamics of volatile fatty acids and Epichloe coenophiala produced ergovaline in steers grazing tall fescue
uesday	9:00	185		De Assis Rocha I	Pharmacokinetics of Bumped Kinase Inhibitor-1708 in horses: a candidate for EPM treatment		Pang J	Effect of enrofloxacin on cecal microbiota and metabolites of chickens challenged with Campylobacter jejuni	Neveau M	Analysis of IAV transmission in large U.S. swine production systems using active surveillance	McDaniel Z	Development of an experimental model for liver abscesses in calves using an acidotic diet and bacterial inoculation
ž	9:15	AAVI Featured Speaker		Fry L	In vivo efficacy of tulathromycin and diclazuril against Theileria haneyi in horses		Portillo-Gonzalez R 196	Antimicrobial quantification on dairy farms before and after the implementation of farmworker stewardship training	Kerfua S	A review on the occurrence of foot- and-mouth disease virus serotypes in Uganda and Tanzania (2003 to 2015)	Strieder-Barboza (	Depot-specific adipose tissue transcriptional alterations in transition dairy cows with subclinical ketosis
	9:30	Rahul Nelli	3D organotypic cell cultures – an alternative ex vivo infection model	Fries-Craft K	Dietary anti-IL-10 impacts on enteric disease outcomes in chickens without early Salmonella exposure		Alam J 197	Quantifying antimicrobial use in peri urban dairy system of Pakistan	Wilson D	Neonatal calf diarrhea case definitions: a scoping review	Slate J 209	Investigating the role of IL-17A in lung repair following Bovine Respiratory Syncytial Virus infection
	9:45	186	for animal research	Johnson A	Evaluating turkey-derived lactic acid producing bacteria as potential probiotics for use in commercial turkeys		137		203		Kincade J 210	Global epigenomic changes observed postnatally elucidate lifelong defects following fetal BVDV infection
10:00	- 10:30		Break	132	Break	Break		Break		Break		Break
Time:		Session 42	AAVI - Featured Speakers	Session 43	Bacteriology		Session 44	Antimicrobial Use 4	Session 45	Epidemiology 5	Session 46	Zoonoses
10:	:30 AM	AAVI Featured Speaker		Inzana T	The role of Hfq and sRNAs on gene			Antimicrobial genes in thermophilic		Outcomes affected by metaphylaxis		
		•			expression and virulence in Histophilus somni		Elsakhawy O	bacillus paralicheniformis associated with mobile elements	Horton L	from a clinical trial of feedlot calves at medium-risk for respiratory disease	Redding L	Infrequent intra-household transmission of Clostridioides difficile between pet owners and their pets
	10:45	Noah Cohen	Strategies for preventing rhodococcal foal pneumonia	214 Gelgie A	expression and virulence in		220 Crosby W	bacillus paralicheniformis	226 McAtee T	at medium-risk for respiratory	232 Benedict K	transmission of Clostridioides difficile
sday	10:45 11:00	Noah Cohen	rhodococcal foal	214  Gelgie A  215  Ott L	expression and virulence in Histophilus somni Identification of virulence genes of Mycoplasma bovis by transposon mutation coupled with in vivo		220 Crosby W 221 Bigelow R	bacillus paralicheniformis associated with mobile elements Metaphylaxis increases prevalence of multidrug resistant Mannheimia haemolytica while improving health	226 McAtee T 227 Carlson J	at medium-risk for respiratory disease  Comprehensive assessment of feedlot health interventions using outcomes research in a	232  Benedict K  233  Prezioso T	transmission of Clostridioides difficile between pet owners and their pets Investigating multistate Salmonella outbreaks linked to backyard poultry:
Tuesday			rhodococcal foal	214 Gelgie A 215	expression and virulence in Histophilus somni Identification of virulence genes of Mycoplasma bovis by transposon mutation coupled with in vivo infection Egg components inhibit the transfer of antimicrobial resistance plasmids		220 Crosby W	bacillus paralicheniformis associated with mobile elements Metaphylaxis increases prevalence of multidrug resistant Mannheimia hæmolytica while improving health in stockers Characterizing the influence of metaphylaxis for bovine respiratory disease on host transcriptome	226 McAtee T 227	at medium-risk for respiratory disease  Comprehensive assessment of feedlot health interventions using outcomes research in a sustainability context  Effect of genetic selection for reduced heart failure risk on feedlot performance and carcass	232 Benedict K	transmission of Clostridioides difficile between pet owners and their pets Investigating multistate Salmonella outbreaks linked to backyard poultry: Detection, data, and partners Understanding close contact between humans and white-tailed deer in
Tuesday	11:00 11:15	211 AAVI Featured	rhodococcal foal	214  Gelgie A  215  Ott L  216  Vinayamohan P	expression and virulence in Histophilus somni Identification of virulence genes of Mycoplasma bovis by transposon mutation coupled with in vivo infection Egg components inhibit the transfer of antimicrobial resistance plasmids in vitro Prevalence and characterization of Salmonella in mesenteric lymph		220 Crosby W 221 Bigelow R 222 Rahman K	bacillus paralicheniformis associated with mobile elements  Metaphylaxis increases prevalence of multidrug resistant Mannheimia haemolytica while improving health in stockers  Characterizing the influence of metaphylaxis for bovine respiratory disease on host transcriptome responses  Predictive modeling of MICs of cephalosporin antibiotics from beta- lactamase resistance genes in	226 McAtee T 227 Carlson J 228 Reif K	at medium-risk for respiratory disease  Comprehensive assessment of feedlot health interventions using outcomes research in a sustainability context  Effect of genetic selection for reduced heart failure risk on feedlot performance and carcass characteristics  Investigation of chronic Anaplasma marginale infection and breeding	232  Benedict K 233  Prezioso T 234  Hall D	transmission of Clostridioides difficile between pet owners and their pets  Investigating multistate Salmonella outbreaks linked to backyard poultry: Detection, data, and partners  Understanding close contact between humans and white-tailed deer in Illinois: a survey study  Hunters behavior change preferences based on risk of tuberculosis and
Tuesday	11:00 11:15	211  AAVI Featured Speaker	rhodococcal foal pneumonia  Highly pathogenic avian influenza in the US and	214  Gelgie A  215  Ott L  216  Vinayamohan P  217  Burciaga S	expression and virulence in Histophilus somni  Identification of virulence genes of Mycoplasma bovis by transposon mutation coupled with in vivo infection  Egg components inhibit the transfer of antimicrobial resistance plasmids in vitro  Prevalence and characterization of Salmonella in mesenteric lymph nodes of bob veal calves  Comparison of MDR Salmonella enterica serovar Heidelberg outbreak isolates linked to dairy beef		220 Crosby W 221 Bigelow R 222 Rahman K 223 De Abreu C	bacillus paralicheniformis associated with mobile elements  Metaphylaxis increases prevalence of multidrug resistant Mannheimia haemolytica while improving health in stockers  Characterizing the influence of metaphylaxis for bovine respiratory disease on host transcriptome responses  Predictive modeling of MICs of cephalosporin antibiotics from beta-lactamase resistance genes in Enterobacteriaceae  Evaluation of Mycoplasma hyopneumoniae antimicrobial resistance in US contemporary	226  McAtee T  227  Carlson J  228  Reif K  229  Goncalves J	at medium-risk for respiratory disease  Comprehensive assessment of feedlot health interventions using outcomes research in a sustainability context  Effect of genetic selection for reduced heart failure risk on feedlot performance and carcass characteristics  Investigation of chronic Anaplasma marginale infection and breeding soundness in beef bulls  Prevalence of methicillin-resistant & susceptible Staphylococci spp. in bulk tank milk from dairy farms in	232  Benedict K 233  Prezioso T 234  Hall D 235  Herring E	transmission of Clostridioides difficile between pet owners and their pets Investigating multistate Salmonella outbreaks linked to backyard poultry: Detection, data, and partners  Understanding close contact between humans and white-tailed deer in Illinois: a survey study  Hunters between the state of t
Tuesday	11:00 11:15 11:30	211  AAVI Featured Speaker  Erica Spackman	rhodococcal foal pneumonia  Highly pathogenic avian influenza in the US and	214  Gelgie A  215  Ott L  216  Vinayamohan P  217  Burciaga S  218  Fu Y	expression and virulence in Histophilus somni  Identification of virulence genes of Mycoplasma bovis by transposon mutation coupled with in vivo infection  Egg components inhibit the transfer of antimicrobial resistance plasmids in vitro  Prevalence and characterization of Salmonella in mesenteric lymph nodes of bob veal calves  Comparison of MDR Salmonella enterica serovar Heidelberg outbreak isolates linked to dairy beef calves  Specific bacteria biotransform bile acids to influence Campylobacter	Break	220 Crosby W 221 Bigelow R 222 Rahman K 223 De Abreu C 224 De Abreu C	bacillus paralicheniformis associated with mobile elements  Metaphylaxis increases prevalence of multidrug resistant Mannheimia haemolytica while improving health in stockers  Characterizing the influence of metaphylaxis for bovine respiratory disease on host transcriptome responses  Predictive modeling of MICs of cephalosporin antibiotics from beta- lactamase resistance genes in Enterobacteriaceae  Evaluation of Mycoplasma hyopneumoniae antimicrobial resistance in US contemporary isolates  Molecular evaluation of Mycoplasma hyopneumoniae antimicrobial resistance in field	226  McAtee T  227  Carlson J  228  Reif K  229  Goncalves J  230  Bourassi S	at medium-risk for respiratory disease  Comprehensive assessment of feedlot health interventions using outcomes research in a sustainability context  Effect of genetic selection for reduced heart failure risk on feedlot performance and carcass characteristics  Investigation of chronic Anaplasma marginale infection and breeding soundness in beef bulls  Prevalence of methicillin-resistant & susceptible Staphylococci spp. in bulk tank milk from dairy farms in Michigan  Multilevel modeling: Association between bovine leukosis proviral load and dairy production	232  Benedict K 233  Prezioso T 234  Hall D 235  Herring E	transmission of Clostridioides difficile between pet owners and their pets Investigating multistate Salmonella outbreaks linked to backyard poultry. Detection, data, and partners  Understanding close contact between humans and white-tailed deer in Illinois: a survey study  Hunters behavior change preferences based on risk of tuberculosis and brucellosis from wood bison in Canada Emergence and mitigation of carbapenem-resistant Escherichia coli in a small animal veterinary teaching in a small animal veterinary teaching