

# CRWAD 2025 DRAFT SCHEDULE

## CRWAD 2025 Program

updated 11/13/2024 @ 3 pm Central

| CRWAD 3 Minute Thesis Competition -- Salon II (7th floor) |                                          |                                                                                                                                                 |                                                                                                                                                           |                                                                                                                                                                |                                                                                                                |                                                                                                                                    |                                                                                                                      |                                                                                                                               |                                                                                             |                                                                                                                     |                                                                                                                                                                      |                                                                                                                                    |
|-----------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Sunday, January 19                                        | 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                                | ACVM - Featured Speakers                                                                                                                        | Session 2                                                                                                                                                 | Companion animal health 1                                                                                                                                      | Session 3                                                                                                      | Aquaculture                                                                                                                        | Session 4                                                                                                            | Epidemiology 1                                                                                                                | Session 5                                                                                   | General health and physiology                                                                                       | Session 6                                                                                                                                                            | Diagnostic testing - Cattle                                                                                                        |
| Sunday, Jan 19                                            | 8:30 am                                  | <b>Dr. John Ellis</b><br>ACVM Distinguished Microbiologist<br><br>"Why aren't we all dead?: Improving on mother nature's plan for immunization" | Hasan<br>3                                                                                                                                                | Epidemiology and case fatality associated factors of atypical canine infectious respiratory disease complex                                                    | Dawood<br>9                                                                                                    | Understanding antimicrobial action and resistance of Edwardsiella ictaluri in response to trans-cinnamaldehyde                     | Elder<br>15                                                                                                          | Effects of varying temperatures on host-pathogen coevolution and disease transmission                                         | Ziegler<br>21                                                                               | Organ-dependent intestinal barrier restitution is impaired by prebiotics                                            | Adewusi<br>27                                                                                                                                                        | Integration of laboratory testing for bovine respiratory disease: Perceptions of Canadian feedlot veterinarians.                   |
|                                                           | 8:45                                     |                                                                                                                                                 | Redding<br>4                                                                                                                                              | Resolution of uncomplicated pneumonia in dogs treated with shorter or longer courses of antimicrobials: a randomized, double-blinded, placebo-controlled study | Dawood<br>10                                                                                                   | Application of trans-cinnamaldehyde in catfish aquaculture                                                                         | Barua<br>16                                                                                                          | Seroprevalence of SARS-CoV-2 Delta and Omicron variants in cats and dogs in the USA                                           | Young<br>22                                                                                 | Characterizing tight junction protein expression in the gastrointestinal tract of feedlot cattle                    | Long<br>28                                                                                                                                                           | Associations of gross and histopathological cardiac and hepatic findings in feedyard mortalities                                   |
|                                                           | 9:00                                     |                                                                                                                                                 | O'Brien<br>5                                                                                                                                              | Home-prepared diets for companion dogs are made from a diverse group of food ingredients and few are balanced                                                  | Hissen<br>11                                                                                                   | Glutamate effects on reactive oxygen species in intestinal mucosal leukocytes of juvenile hybrid striped bass                      | Mundt<br>17                                                                                                          | Evaluating sources of uncertainty in predictions of epidemic spread                                                           | Abou-Rjeileh<br>23                                                                          | Oleic acid promotes lipogenesis and improves mitochondrial function in bovine adipocytes: role of PPARα signaling   | Jumper<br>29                                                                                                                                                         | Comparing 0.9% sterile saline to phosphate buffered saline as a transport media for Trichomonas foetus RT-qPCR testing             |
|                                                           | 9:15                                     |                                                                                                                                                 | <b>Dr. Matthew Scott</b><br><br>"Investigating bovine immune-mediated mechanisms influenced by viral respiratory vaccination through bulk RNA sequencing" | Srinivas<br>6                                                                                                                                                  | Marked neurotropism and potential adaptation of H5N1 clade 2.3.4.4.b virus in naturally infected domestic cats | Connolly<br>12                                                                                                                     | Glycine is a nutritionally essential amino acid in juvenile hybrid-striped bass (Morone chrysops x Morone saxatilis) | Sequeira<br>18                                                                                                                | ICV1 exceptions in U.S. States: A risk to cattle disease traceability and movement networks | Dekkers<br>24                                                                                                       | A genome-wide association study of measures of stress response in young healthy pigs and in grow-to-finish pigs exposed to a natural polymicrobial disease challenge | Jumper<br>30                                                                                                                       |
|                                                           | 9:30                                     | Son<br>7                                                                                                                                        |                                                                                                                                                           | Re-purposing arbidol as a potential antiviral agent against canine parvovirus type-2                                                                           | Fragomeni<br>13                                                                                                | Evaluation of genomic selection for acute hepatopancreatic necrosis disease resistance in white pacific shrimp: Genomic prediction | Smith<br>19                                                                                                          | Optimizing environmental surveillance                                                                                         | Barber<br>25                                                                                | Novel bovine reference gene candidates for RT-qPCR identified via publicly available tissue RNA-seq datasets        | Craig<br>31                                                                                                                                                          | Optimizing Salmonella Dublin detection in clinically ill dairy calves                                                              |
|                                                           | 9:45                                     | Nooruzzaman<br>8                                                                                                                                |                                                                                                                                                           | ORF6 contributes to SARS-CoV-2 virulence and pathogenicity in the naturally susceptible feline species                                                         | Li<br>14                                                                                                       | Underwater vaccination using biopolymeric microneedles                                                                             | Tran<br>20                                                                                                           | Combining machine learning with H3 influenza A virus whole genome sequence data for host prediction                           | Pace<br>26                                                                                  | Intrauterine wildfire-PM2.5 exposure affects calf growth, health, and metabolic and inflammatory markers            | Bernal-Córdoba<br>32                                                                                                                                                 | Evaluating the accuracy of brix and serum total protein as proxies for IgG in assessing the transfer of passive immunity in calves |
|                                                           | 10:00 - 10:30                            | Break                                                                                                                                           |                                                                                                                                                           | Break                                                                                                                                                          |                                                                                                                | Break                                                                                                                              |                                                                                                                      | Break                                                                                                                         |                                                                                             | Break                                                                                                               |                                                                                                                                                                      |                                                                                                                                    |
|                                                           | Time:                                    | Session 7                                                                                                                                       | ACVM - Featured Speakers                                                                                                                                  | Session 8                                                                                                                                                      | Diagnostic testing 1                                                                                           | Session 9                                                                                                                          | Tick-borne diseases                                                                                                  | Session 10                                                                                                                    | Epidemiology 2                                                                              | Session 11                                                                                                          | Disease pathogenesis 1                                                                                                                                               | Session 12                                                                                                                         |
| Sunday, Jan 19                                            | 10:30 am                                 | <b>Dr. Scott McVey</b><br><br>"Infection and immunity - clinical outcomes"                                                                      | Encinosa<br>35                                                                                                                                            | Screening novel biocides for rapid killing of Salmonella isolates of concern                                                                                   | Black<br>41                                                                                                    | A survey to assess risk factors associated with tick and mosquito exposure in Illinois                                             | McAtee<br>47                                                                                                         | Associations between estimated greenhouse gas emissions in feedlot cattle cohorts and their health and performance            | Gaber<br>53                                                                                 | Testing the pathogenesis of the Louse-borne Relapsing Fever pathogen in the immunocompetent mouse model             | Zia<br>59                                                                                                                                                            | Testing alternate biosecurity policy mechanisms to overcome moral hazard problem in indemnifying cattle producers                  |
|                                                           | 10:45                                    |                                                                                                                                                 | Shrestha<br>36                                                                                                                                            | Rapid serotype-independent differential detection of biofilm-positive and biofilm-negative Salmonella using FTIR biotyping                                     | Johnson-Walker<br>42                                                                                           | Invasive plant species as risk factors for tickborne disease in humans and livestock                                               | Jumper<br>48                                                                                                         | Cross-sectional study estimating seroprevalence of Anaplasma marginale in Mississippi beef cow-calf herds                     | Ghahari<br>54                                                                               | Inflammatory pathways in Clostridioides difficile infection: A murine spatial transcriptomics study                 | Herman<br>60                                                                                                                                                         | Enhanced biosecurity planning resources for foot-and-mouth disease preparedness for cattle veterinarians                           |
|                                                           | 11:00                                    |                                                                                                                                                 | Naseer<br>37                                                                                                                                              | Comparative analysis of PRRSV RT-qPCR Ct value distributions across various sample types                                                                       | Oliva Chavez<br>43                                                                                             | Identification of tick antigens after vaccination with tick extracellular vesicles in white-tailed deer                            | Howell<br>49                                                                                                         | Cross-sectional study to determine factors related to gastrointestinal parasite prevalence in Mississippi beef cow-calf herds | Sun<br>55                                                                                   | The effect of Clostridium perfringens intracellular bile acid levels and growth                                     | Wang<br>61                                                                                                                                                           | Use of an electrostatic precipitator to decrease airborne transmission of viruses in experimentally infected pigs                  |
|                                                           | 11:15                                    | <b>Kyoungjin J. Yoon</b><br><br>"Current status of swine viral infections in the US: emerging and re-emerging diseases."                        | Chung<br>38                                                                                                                                               | Evaluation of aggregate oral fluids for African swine fever real-time PCR diagnostics using samples collected on Romanian farms with an active outbreak        | Yoon<br>44                                                                                                     | Monitoring of various tick-borne viruses in ticks living in the Republic of Korea in 2024                                          | Varga<br>50                                                                                                          | Evaluating beef cattle producers' disease prevention knowledge, attitude, and practices in Illinois, USA                      | Filipov<br>56                                                                               | Ergot alkaloid dynamics and physiological responses in steers rotating grazing toxic endophyte-infected tall fescue | Smith<br>62                                                                                                                                                          | A scoping review of Foot-and-Mouth Disease biosecurity practices and farm-level risk factors                                       |
|                                                           | 11:30                                    |                                                                                                                                                 | Reddi<br>39                                                                                                                                               | Automated 384-well RT-qPCR assay advances high-volume testing for Porcine Reproductive and Respiratory Syndrome Virus                                          | Shahzad<br>45                                                                                                  | Identification of A. marginale surface-protein binding receptors on Dermacentor andersoni tick cells.                              | Noyes<br>51                                                                                                          | Prevalence of bovine coronavirus in nasal samples collected from beef calves during a controlled commingling event            | Myers<br>57                                                                                 | Endotoxemia modulates endocannabinoid and ethanolamide profiles in dairy cows' plasma                               | Shah<br>63                                                                                                                                                           | Assessing ultrasound probe disinfection in veterinary clinics: A hidden risk for bacterial transmission?                           |
|                                                           | 11:45                                    |                                                                                                                                                 | Saxena<br>40                                                                                                                                              | Leveraging automation and 384-well RT-qPCR assays for rapid detection of SARS-CoV-2 in animal species                                                          | Latre de Late<br>46                                                                                            | Inactivated whole cell antigen vaccine confers protection against heterologous Rickettsia rickettsii strains in the canine host.   | Botero<br>52                                                                                                         | Exploring subpopulation dynamics of Salmonella enterica in harvest-ready beef cattle and feedlot environment                  | Chirivi<br>58                                                                               | Cyclooxygenase Activity Determines TLR4-Mediated Lipolysis in Bovine Adipocytes During Endotoxin Challenge          | Burgess<br>64                                                                                                                                                        | What would it take to inspire ambulatory veterinary practitioners to make a just-in-time decision to use PPE?                      |
| Lunch - 12:00 to 1:30                                     | Lunch Break (On Your Own)                |                                                                                                                                                 |                                                                                                                                                           |                                                                                                                                                                |                                                                                                                |                                                                                                                                    |                                                                                                                      |                                                                                                                               |                                                                                             |                                                                                                                     |                                                                                                                                                                      |                                                                                                                                    |
| Lunch - 12:00 to 1:30                                     | CRWAD Fellows Luncheon (Invitation Only) |                                                                                                                                                 |                                                                                                                                                           |                                                                                                                                                                |                                                                                                                |                                                                                                                                    |                                                                                                                      |                                                                                                                               |                                                                                             |                                                                                                                     |                                                                                                                                                                      |                                                                                                                                    |

*This schedule is tentative and subject to change*

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# CRWAD 2025 DRAFT SCHEDULE

| Time:                 | Session 13       | CRWAD Council Keynote and Special Symposium                                                                                                                 |                                       |                                       |                                       |                                       |
|-----------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <b>Sunday, Jan 19</b> | 1:30 PM          | <b>CRWAD Council Keynote</b><br><b>Dr. Philip Santangelo</b><br>"RNA therapy beyond vaccination: possibilities and challenges"<br>65                        | CRWAD Featured Presentations Salon II | CRWAD Featured Presentations Salon II | CRWAD Featured Presentations Salon II | CRWAD Featured Presentations Salon II |
|                       | 1:45 PM          |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 2:00             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 2:15             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 2:30             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 2:45             | <b>CRWAD Special Symposium</b><br><b>Dr. R. Jeff Hogan</b><br>"Development of countermeasures for high consequence zoonotic and human pathogens"<br>66      |                                       |                                       |                                       |                                       |
|                       | 3:00             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
| 3:15                  |                  |                                                                                                                                                             |                                       |                                       |                                       |                                       |
| 3:30 to 4:00          | Break            | Break                                                                                                                                                       | Break                                 | Break                                 | Break                                 | Break                                 |
| Time:                 | Session 14       | CRWAD Council Keynote and Special Symposium                                                                                                                 |                                       |                                       |                                       |                                       |
| <b>Sunday, Jan 19</b> | 4:00 PM          | <b>CRWAD Special Symposium</b><br><b>Dr. Francois Villinger</b><br>"mRNA applications in nonhuman primate models for improved preclinical evaluation"<br>67 | CRWAD Featured Presentations Salon II | CRWAD Featured Presentations Salon II | CRWAD Featured Presentations Salon II | CRWAD Featured Presentations Salon II |
|                       | 4:15             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 4:30             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 4:45             | <b>CRWAD Special Symposium</b><br><b>Dr. Amelia R. Woolums</b><br>"Opportunities for RNA therapy in animal health"<br>68                                    |                                       |                                       |                                       |                                       |
|                       | 5:00             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
|                       | 5:15             |                                                                                                                                                             |                                       |                                       |                                       |                                       |
| 5:30 - 6:00           | Panel Discussion |                                                                                                                                                             |                                       |                                       |                                       |                                       |
| 6:00-8:00 PM          | Reception        |                                                                                                                                                             |                                       |                                       |                                       |                                       |

# CRWAD 2025 DRAFT SCHEDULE

| Monday, January 20    | 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                                                                                                     |
|-----------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Time</b>           | <b>Session 15</b>                | <b>AAVI - Distinguished Immunologist</b>                                                                                                   | <b>Session 16</b>        | <b>Antimicrobial resistance 1</b>                                                                                                                                     | <b>Session 17</b>    | <b>Parasitology &amp; Vaccinology</b>                                                                                               | <b>Session 18</b>    | <b>Epidemiology 3</b>                                                                                                                                       | <b>Session 19</b>    | <b>Disease pathogenesis 2</b>                                                                                                                        | <b>Session 20</b>      | <b>Bacteriology 1</b>                                                                                                       |
| <b>Monday, Jan 20</b> | 8:30 am                          | 69<br>"Immune response after vaccination - peculiarities of the porcine immune system"                                                     | Adebole 71               | Balancing farm antimicrobial resistance genomic research and data privacy                                                                                             | Pietrantonio 77      | Towards novel acaricide development against cattle fever tick: bioassays of novel small molecules on tick larvae and ex-vivo midgut | Rico 83              | Case-control study exploring associations between demographics and HPPI risk in lactating Holstein cows                                                     | Felizari 89          | Hepatic transcriptome analysis reveals candidate genes in liver abscesses of beef x dairy crossbred steers                                           | Chen 95                | Listeria monocytogenes infection in the bovine ligated ileal loops                                                          |
|                       | 8:45                             |                                                                                                                                            | L. R. Santana-Pereira 72 | Antimicrobial resistance and virulence reservoirs: evolution, distribution and persistence of R. equi in horse farms                                                  | Vakamalla 78         | Mapping the neutralizing epitopes of Shiga toxins                                                                                   | Reid 84              | Effect of antioxidant supplementation on health and growth of pre-weaned dairy calves in a multi-herd study                                                 | Garzon 90            | WGS of intrauterine E. coli from cows with metritis reveals a non-unique genotype and the lack of virulence factors associated with disease          | Jacobson 96            | Exploring biofilm formation in Mycoplasma ovipneumoniae: attachment, nuclease activity, and disaggregation                  |
|                       | 9:00                             |                                                                                                                                            | Kabir 73                 | Whole genome sequence analysis and antimicrobial resistance profiles of Salmonella isolated from necropsied horse                                                     | Witola 79            | Unique glycolytic enzymes as targets for novel anti-Cryptosporidium drugs in bovine calves                                          | Dunn 85              | US-UK Collab: Influence of vaccines, host genetics, and mutation rates on the evolution of infectious diseases                                              | Bromfield 91         | Heat stress alters innate immune function of the endometrial mucosa in dairy cows and is associated with increased uterine disease                   | Atlaw 97               | Molecular characterization of uncommon historical isolates of Salmonella                                                    |
|                       | 9:15                             | 70<br>"Potentiating the application of immunoinformatics tools to animal health"                                                           | Gaire 74                 | Targeted resistome sequencing and colocalization analysis for assessing antimicrobial resistance genes and their bacterial hosts                                      | McAtee 80            | Aerosolized synthetic mRNA elicits antibodies against Trichostrongylus axei in bovine preputial skin                                | Dunlea 86            | A quantitative model of the risk of FMD transmission following cattle movements during an outbreak                                                          | Bradley 92           | Using fluorescent Salmonella serovars to evaluate trafficking and tissue preference in orally challenged calves                                      | Dudley 98              | Identification of virulence genes in Salmonella isolates from cattle.                                                       |
|                       | 9:30                             |                                                                                                                                            | Li 75                    | Assessment of antimicrobial resistance genes in the bovine gastrointestinal tract                                                                                     | Thoresen 81          | Pathogenicity of Trichostrongylus axei following exposure to anti-TF1.17 produced via synthetic mRNA transfection                   | Osuagwu 87           | Evaluating FMD spread among U.S. dairy cattle premises: Findings from the InterSpread Plus model                                                            | Cao 93               | Interactions of Fusobacterium necrophorum, Bacteroides pyogenes and Porphyromonas levis in bovine metritis                                           | Ajulo 99               | Unraveling the antibiotic-dependent evolutionary changes in globally emerging multidrug-resistant Salmonella                |
|                       | 9:45                             |                                                                                                                                            | Gaire 76                 | The impact of diet and commingling on the fecal resistome of production pigs exposed to metaphylactic antibiotics: a randomized controlled trial in a commercial flow | Gontu 82             | A trans-amplifying SARS-CoV-2 mRNA vaccine generates broad antibody responses against multiple virus variants                       | Vidlund 88           | State-level geographic disparities and annual changes in milk somatic cell counts across the United States, 2011-2023                                       | Panda 94             | 3D bovine endometrium model for studying host-pathogen interactions associated with metritis                                                         | Jarvis 100             | The development of an axenic medium to support Anaplasma marginale metabolic activity and replication                       |
| 10:00 - 10:30         | <b>Break</b>                     |                                                                                                                                            |                          |                                                                                                                                                                       |                      |                                                                                                                                     |                      |                                                                                                                                                             |                      |                                                                                                                                                      |                        |                                                                                                                             |
| <b>Time:</b>          | <b>Session 21</b>                | <b>AAVI - Distinguished Immunologist</b>                                                                                                   | <b>Session 22</b>        | <b>One health / Public health 1</b>                                                                                                                                   | <b>Session 23</b>    | <b>Companion animal health 2</b>                                                                                                    | <b>Session 24</b>    | <b>Bovine Respiratory Disease 1</b>                                                                                                                         | <b>Session 25</b>    | <b>Porcine Reproductive and Respiratory Syndrome</b>                                                                                                 | <b>Session 26</b>      | <b>Bacteriology 2</b>                                                                                                       |
| <b>Monday, Jan 20</b> | 10:30 am                         | 101<br>"Emergence and spread of viruses in new hosts - the examples of canine parvovirus and H3N8 canine influenza virus."                 | Bradley 103              | Behavioral strategies of state animal health officials on national disease reporting                                                                                  | Sexton 109           | Testing for heavy metals in drinking water collected from Dog Aging Project participants                                            | Jakes 115            | Stress primes a proinflammatory respiratory mucosal immune response in beef stocker cattle                                                                  | Tang 121             | A simple and fast reverse genetics system for porcine reproductive and respiratory syndrome virus and generation of transcription-reprogrammed virus | Runcharoon 127         | Using challenge models to identify pathogenicity traits of novel Avian Pathogenic E. coli (APEC) serogroups                 |
|                       | 10:45                            |                                                                                                                                            | Clegggett 104            | A survey of emergency preparedness and disaster response in animal shelters located in the United States of America                                                   | Sexton 110           | How can we achieve more accurate reporting of average dog lifespan?                                                                 | Ramirez 116          | Multimic investigation in beef cattle characterizes management-associated immune modulation in context of respiratory disease                               | Keen 122             | Effect of dietary vitamin D3 on PRRSV disease severity and immune response in nursery pigs                                                           | Castillo Espinoza 128  | M. hyopneumoniae infects and disrupts the air-liquid cultured porcine-derived primary respiratory epithelial cells          |
|                       | 11:00                            |                                                                                                                                            | McClurg 105              | Are antimicrobial resistance genes transferred to consumers through beef consumption?                                                                                 | Rostami 111          | Assessing the application of infrared thermography for measuring unrestrained dog body surface temperature                          | Donbraye 117         | Metagenomic detection of BRD viruses at and shortly after arrival in commercial beef feedlots in Western Canada                                             | Crisci 123           | PRRSV-2 immune biobank for vaccine efficacy prediction                                                                                               | Castillo Espinoza 129  | M. hyopneumoniae modulates ciliary and adherens junction gene expression in air-liquid porcine respiratory epithelial cells |
|                       | 11:15                            | 102<br>"Perspectives on vaccination as an approach for control of highly pathogenic avian influenza viruses: challenges and opportunities" | Brake 106                | An investigation into the suitability of household pets as sentinels for human exposure to Per- and Polyfluoroalkyl Substances (PFAS)                                 | O'Brien 112          | Environmental exposures and health outcomes differ according to geographic region among Dog Aging Project participants              | Doster 118           | Enriching without culture: target-enriched metagenomics allows for strain-level characterization of M. haemolytica                                          | Pasternak 124        | Influence of gestational age on vertical transmission of PRRSV2                                                                                      | Mellata 130            | Broiler and layer chickens' responses to host-specific bacteria colonization in early life                                  |
|                       | 11:30                            |                                                                                                                                            | Tasnim 107               | Genetic relatedness of beta-lactamase-producing Escherichia coli from different One Health sources.                                                                   | Davies 113           | Companion animal health surveillance systems: an environmental scan                                                                 | Lamsal 119           | Development and optimization of targeted enriched metagenomics protocol to obtain strain-level data for Mycoplasma bovis in respiratory samples from cattle | Weiderman 125        | Decoding the spatial patterns of PRRS induced cell death                                                                                             | Virgilio Fernandes 131 | A novel CRISPR-prime editing strategy for single-nucleotide resolution mutations in Leptospira spp                          |
|                       | 11:45                            |                                                                                                                                            | James 108                | Close genetic relatedness of carbapenem-resistant Enterobacteriales from companion animals and humans.                                                                | McCullough 114       | Diagnoses in dogs with pet health insurance                                                                                         | Kaplan 120           | Bovine herpesvirus-1, Mycoplasma bovis co-infection rapidly enhances lung pathogenesis at early timepoints post-infection                                   | Deng 126             | A longitudinal trial of fecal microbiota transplant (FMT) therapy to weaned pigs during post-weaning viral co-infection                              | Meinen-Jochum 132      | Sequencing of the chicken segmented filamentous bacteria genome reveals differences between host-species                    |
| Lunch - 12:00 to 2:00 | <b>Lunch Break (On Your Own)</b> |                                                                                                                                            |                          |                                                                                                                                                                       |                      |                                                                                                                                     |                      |                                                                                                                                                             |                      |                                                                                                                                                      |                        |                                                                                                                             |

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| Monday, January 20    | Presenter Abstract #                                                                 | Salon II (7th)<br>Title                                                                                                                | Presenter Abstract # | Chicago A/B (5th)<br>Title                                                                                                                                        | Presenter Abstract # | Chicago C (5th)<br>Title                                                                                                                      | Presenter Abstract # | Chicago D (5th)<br>Title                                                                                                                  | Presenter Abstract # | Chicago E (5th)<br>Title                                                                                                                                       | Presenter Abstract # | Chicago F/G (5th)<br>Title                                                                                                             |
|-----------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Time:</b>          | <b>Session 27</b>                                                                    | AVEPM - Schwabe Symposium                                                                                                              | <b>Session 28</b>    | Antimicrobial resistance 2                                                                                                                                        | <b>Session 29</b>    | Disease therapeutics                                                                                                                          | <b>Session 30</b>    | Immunology 1                                                                                                                              | <b>Session 31</b>    | Highly Pathogenic Avian Influenza in Cattle                                                                                                                    | <b>Session 32</b>    | Virology 1                                                                                                                             |
| <b>Monday, Jan 20</b> | <b>2:00 PM</b>                                                                       | <b>Introduction for the Calvin W. Schwabe Award</b>                                                                                    | <b>135</b>           | Goankar<br>Antimicrobial resistance in the different stages of commercial poultry production environment                                                          | <b>141</b>           | Lamichhane<br>Novel antibiotic alternative approaches for controlling Salmonella infections in vitro                                          | <b>147</b>           | Griffin<br>Interferon stimulated genes as predictive morbidity markers in calves following in-utero viral infection                       | <b>153</b>           | Cargnin Faccin<br>Experimental infection and viral pathogenesis of H5N1 in Jersey cattle                                                                       | <b>159</b>           | Mani<br>Exploring the pathogenesis of newly emerged African swine fever virus in naturally infected pigs from India                    |
|                       | <b>2:15</b>                                                                          | <b>Dr. Jan Scarlett, AVEPM Calvin Schwabe Award</b>                                                                                    | <b>136</b>           | Mansfield<br>Zoonotic spread of antibiotic resistance genes by conjugation to the gut microbiota can expand the resistome                                         | <b>142</b>           | Helmy<br>Novel quorum sensing inhibitors as potential therapeutics for the control of Salmonella infections                                   | <b>148</b>           | Bastos<br>Bovine humoral immune response to the major piroplasm surface protein of Theileria orientalis Ikeda                             | <b>154</b>           | Young<br>Deploying an H5N1 vaccine in dairy - the leveraging of a USDA licensed platform                                                                       | <b>160</b>           | Yen<br>Characterization of segment-specific porcine enteroids and susceptibility to porcine epidemic diarrhea virus                    |
|                       | <b>2:30</b>                                                                          |                                                                                                                                        | <b>133</b>           | White<br>Impact of commercial vaccination on the ecology and antimicrobial susceptibility testing of avian Escherichia coli in turkey production                  | <b>143</b>           | Harman<br>Treatment of equine thorax wounds with mesenchymal stromal cell secretome                                                           | <b>149</b>           | Wilson<br>Immunological impacts following an in-utero BVDV exposure in post-weaning calves                                                | <b>155</b>           | Twu<br>Distribution of influenza and coronavirus receptors in the respiratory and intestinal tract of beef cattle                                              | <b>161</b>           | Singh<br>Japanese encephalitis virus expands genomic heterogeneity during fetal infection in the native amplifying host                |
|                       | <b>2:45</b>                                                                          |                                                                                                                                        | <b>138</b>           | Weninger<br>Exploring the intestinal colonization, antimicrobial sensitivity, and resistance gene profiles of Klebsiella in shelter dogs on Long Island, New York | <b>144</b>           | Dawood<br>Oral florfenicol core-shell composite nanogels for efficient treatment of bacterial enteritis                                       | <b>150</b>           | Teddlton<br>Exploring differential metabolic responses in immune cells from naturally parasite-resistant sheep                            | <b>156</b>           | Diel<br>The impact of highly pathogenic avian influenza H5N1 virus infection in dairy cattle                                                                   | <b>162</b>           | Zeller<br>Nextclade dataset for the rapid classification of Porcine Circovirus 2                                                       |
|                       | <b>3:00</b>                                                                          | <b>Dr. Margaret Slater</b>                                                                                                             | <b>139</b>           | Gregory<br>Characterization of ceftiofur-resistant Gram negative bacteria recovered from dairy cattle                                                             | <b>145</b>           | Viju<br>Therapeutic efficacy of linalool to reduce Salmonella Enteritidis and Campylobacter jejuni in market-age broiler chickens             | <b>151</b>           | Kesler<br>Utilizing zinc to modulate GLUT4 expression in bovine CD4 lymphocytes                                                           | <b>157</b>           | Shi<br>Experimental infection of calves with swine influenza H3N2 virus                                                                                        | <b>163</b>           | Diaz<br>The SERPIN function of Senecavirus A 2C protein and its regulation of the viral 3C protease                                    |
|                       | <b>3:15</b>                                                                          |                                                                                                                                        | <b>140</b>           | Bahadur<br>Integron-encoded antimicrobial resistance genes in Salmonella Typhimurium isolated from dairy cattle                                                   | <b>146</b>           | Sonar<br>Short-term efficacy of enrofloxacin in reducing Mesomyxoplasma ovipneumoniae infection without sustained clearance in domestic lambs | <b>152</b>           | Donia<br>Characterization of regional differences in neonatal calf gut-associated lymphoid tissues using high resolution snRNA-sequencing | <b>158</b>           | Britto de Oliveira<br>Highly pathogenic avian influenza H5N1 virus infection in dairy cattle, serologic antibody detection                                     | <b>164</b>           | Kim<br>A comparative study of structural protein compositions to assemble virus-like particles of Seneca Valley virus                  |
| <b>3:30-4:15 PM</b>   | <b>CRWAD Business Meeting and Listening Session - Chicago Ballroom D (5th floor)</b> |                                                                                                                                        |                      |                                                                                                                                                                   |                      |                                                                                                                                               |                      |                                                                                                                                           |                      |                                                                                                                                                                |                      |                                                                                                                                        |
| <b>Time:</b>          | <b>Session 33</b>                                                                    | AVEPM - Schwabe Symposium                                                                                                              | <b>Session 34</b>    | African Swine Fever                                                                                                                                               | <b>Session 35</b>    | Antimicrobial use                                                                                                                             | <b>Session 36</b>    | Immunology 2                                                                                                                              | <b>Session 37</b>    | Bovine Respiratory Disease 2                                                                                                                                   | <b>Session 38</b>    | Vaccinology 1                                                                                                                          |
| <b>Monday, Jan 20</b> | <b>4:15 PM</b>                                                                       | <b>Dr. Aelxandra Protopopova</b><br>"The use of mixed methods to explore the complex issue of companion animal relinquishment"         | <b>165</b>           | Noel<br>A dynamic network evaluation of human, animal, and truck movement data across a swine farm system                                                         | <b>173</b>           | Koebel<br>AUDIO: An app to aid antimicrobial use monitoring on dairy farms                                                                    | <b>179</b>           | Diaz<br>Immunogenicity of innate nanoparticles in lambs and efficacy against Respiratory Syncytial Virus infection                        | <b>185</b>           | Inzana<br>Characterization and resolution of poly-microbial biofilms in bovine respiratory disease                                                             | <b>191</b>           | Perez<br>Mass vaccination against avian influenza with novel Modified Live Virus (MLV) vaccines                                        |
|                       | <b>4:30</b>                                                                          |                                                                                                                                        | <b>166</b>           | Prezioso<br>A dynamic network evaluation of human, animal, and truck movement data across a swine farm system                                                     | <b>174</b>           | Bhimavarapu<br>Environmental antimicrobial resistance threats to pollinators                                                                  | <b>180</b>           | Cohen<br>Modifications of mRNA encoding a monoclonal antibody against Rhodococcus equi for nebulizing foals                               | <b>186</b>           | McClurg<br>Impact of six different antimicrobial treatments on the microbiome and resistome of feedlot cattle                                                  | <b>192</b>           | Bradshaw<br>In silico design and evaluation of a cross-protective, multiepitope vaccine against outbreak-associated Salmonella         |
|                       | <b>4:45</b>                                                                          | <b>Dr. Rachel Kreisler</b><br>"Epidemiological insights: Classic tools for modern animal shelter and community animal health research" | <b>169</b>           | Gladue<br>An innovative and effective CRISPR based anti-viral treatment in pigs infected with African Swine Fever Virus                                           | <b>175</b>           | Bernal-Córdoba<br>Efficacy of antimicrobial drugs in the prevention and control of protozoal and bacterial calf diarrhea: A scoping review    | <b>181</b>           | Parcells<br>The Role of exosomes in Marek's disease virus-mediated immunosuppression and vaccine responses                                | <b>187</b>           | Feltoza<br>Histologic characterization of pulmonary lesions in feedyard cattle mortalities                                                                     | <b>193</b>           | Conrad<br>Enhancing the production of type I interferons to create rationally-defined Marek's disease vaccines                         |
|                       | <b>5:00</b>                                                                          |                                                                                                                                        | <b>170</b>           | Lee<br>Molecular characterization reveals novel African swine fever virus recombinant between genotypes I and II                                                  | <b>176</b>           | Portillo-Gonzalez<br>Understanding the barriers and drivers influencing treatment decisions in large dairy farms in Ohio and California       | <b>182</b>           | Dolatyabi<br>Probiotic Lactobacilli enhances the efficacy of mannose chitosan nanovaccine against Salmonella food poisoning in broilers   | <b>188</b>           | McAllister<br>How does vaccination and marketing impact bovine respiratory disease and inflammatory mediator production in beef calves?                        | <b>194</b>           | Suresh<br>Evaluating the efficacy of mannose conjugated chitosan nanoparticle-based Salmonella subunit vaccine in adult layer chickens |
|                       | <b>5:15</b>                                                                          | <b>Panel Discussion</b>                                                                                                                | <b>171</b>           | Yuan<br>Comparison of immunogenicity among membrane-bound, secreted, and intracellular forms of viral capsid proteins                                             | <b>177</b>           | Bastos<br>Assessment of dual-platform technology for bone regeneration and local antibiotic delivery in a goat osteomyelitis model            | <b>183</b>           | Wang<br>Mucosal immune responses to avian influenza virus in the Harderian gland of genetically distinct, highly inbred chicken lines     | <b>189</b>           | Rients<br>Disease severity alters mineral metabolism and gene expression in lesion and non-lesion lung tissues of bovine respiratory disease challenged steers | <b>195</b>           | Zafar<br>Toward a cell-free Marek's disease vaccine                                                                                    |
|                       | <b>5:30</b>                                                                          |                                                                                                                                        | <b>172</b>           | Chalkowski<br>Intensive population control for transboundary animal disease control influences space-use; case with wild pigs (Sus scrofa)                        | <b>178</b>           | Cheng<br>Associations with selective antimicrobial use practices in adult dairy cattle                                                        | <b>184</b>           | Slate<br>Duration and characterization of anamnestic responses following RB51 vaccination in bison                                        | <b>190</b>           | Huertas<br>Nasal and bronchoalveolar BRSV IgG-1 transferred from maternal colostrum or a colostrum replacement in dairy calves                                 | <b>196</b>           | Whelan<br>USDA Salmonella vaccine reduces colonization and dissemination of serovar Enteritidis in chickens                            |
| <b>5:45</b>           | <b>Break</b>                                                                         | <b>Break</b>                                                                                                                           | <b>Break</b>         | <b>Break</b>                                                                                                                                                      | <b>Break</b>         | <b>Break</b>                                                                                                                                  | <b>Break</b>         | <b>Break</b>                                                                                                                              | <b>Break</b>         | <b>Break</b>                                                                                                                                                   | <b>Break</b>         | <b>Break</b>                                                                                                                           |
| <b>6:00-8:00 PM</b>   | <b>Poster Session -- Salon III (7th floor)</b>                                       |                                                                                                                                        |                      |                                                                                                                                                                   |                      |                                                                                                                                               |                      |                                                                                                                                           |                      |                                                                                                                                                                |                      |                                                                                                                                        |

*This schedule is tentative and subject to change*

# CRWAD 2025 DRAFT SCHEDULE

| Tuesday, January 21 |                                                                  | Salon II (7th)                                                                                                                                     |                                                                                                                    | Chicago A/B (5th)                                                                                                                                    |                                                                                                                         | Chicago C (5th)                                                                                                                                                      |                                                                                                                  | Chicago D (5th)                                                                                                                                  |                                                                   | Chicago E (5th)                                                                                                                          |                      | Chicago F/G (5th)                                                                                                                                                   |                                                                                                                            |
|---------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Time:               | Presenter Abstract #                                             | Title                                                                                                                                              | Presenter Abstract #                                                                                               | Title                                                                                                                                                | Presenter Abstract #                                                                                                    | Title                                                                                                                                                                | Presenter Abstract #                                                                                             | Title                                                                                                                                            | Presenter Abstract #                                              | Title                                                                                                                                    | Presenter Abstract # | Title                                                                                                                                                               |                                                                                                                            |
|                     | Session 39                                                       | Animal Vaccinology Research Network Symposium                                                                                                      | Session 40                                                                                                         | One health / Public health 2                                                                                                                         | Session 41                                                                                                              | Salmonella                                                                                                                                                           | Session 42                                                                                                       | Epidemiology 4                                                                                                                                   | Session 43                                                        | Virology 2                                                                                                                               | Session 44           | Vaccinology 2                                                                                                                                                       |                                                                                                                            |
| Tuesday, Jan 21     | 8:30 AM                                                          | 197<br><b>Dr. Yongqun "Oliver" He</b><br>"Advancing systems vaccinology by leveraging AI"                                                          | 200                                                                                                                | Regional variability in biosecurity investment choices in the United States: the role of socio-psychological and demographic factors                 | 205                                                                                                                     | Eugenol nanoemulsion in chicken drinking water reduces Salmonella Enteritidis colonization in broiler chickens                                                       | 211                                                                                                              | Investigation of Burkholderia pseudomallei seroprevalence in pigs slaughtered at selected pig abattoirs in Uganda                                | 217                                                               | Coinfection of SPF turkeys with arthritic and enteric reovirus alters viral shedding and gut bacterial diversity                         | 223                  | Identifying immune correlates of protection against Anaplasma marginale                                                                                             |                                                                                                                            |
|                     | 8:45                                                             |                                                                                                                                                    | 201                                                                                                                | Comparing environmental and personal air sampling methods for full-length 16S-based microbiome analysis of samples collected in farms, a pilot study | 206                                                                                                                     | Mind the gap: Persistent problems in the world of enteric zoonoses and how data could inform public health action                                                    | 212                                                                                                              | Molecular epidemiology and population structure of Brachyspira hyodysenteriae and its impact on swine dysentery                                  | 218                                                               | Activation of bovine herpesvirus 1 (BoHV-1) infected cell protein 0 (ICP0) early promoter by stress                                      | 224                  | Parenteral vaccination with Moraxella bovis cytotoxin and porin adjuvanted with Emulsigen®-D to prevent bovine pinkeye                                              |                                                                                                                            |
|                     | 9:00                                                             |                                                                                                                                                    | 202                                                                                                                | Quantitative risk assessment of human H5N1 infection from consumption of fluid milk                                                                  | 207                                                                                                                     | Emergence of a Salmonella Enteritidis strain with decreased susceptibility to ciprofloxacin in U.S. poultry                                                          | 213                                                                                                              | Characterizing hot spots for avian-equine influenza spillover                                                                                    | 219                                                               | Reduced susceptibility to heparan sulfate-adapted BVDV in primary cells from a CD46 edited bovine heifer                                 | 225                  | Angular IgA and IgG responses in cattle vaccinated intranasally with native M. bovis/M. bovoculi cytotoxin adjuvanted with Carbigen®                                | 225                                                                                                                        |
|                     | 9:15                                                             | 198<br><b>Dr. Daniel O'Connor</b><br>"Systems vaccinology: utilising the "-omics" toolkit to elucidate the mechanisms underlying immune responses" | 203                                                                                                                | A One-Health approach in surveilling for emerging respiratory viruses on cattle farms in Kentucky and Indiana                                        | 208                                                                                                                     | Identifying environmental reservoirs of Salmonella enterica on dairy farms in the northeastern United States                                                         | 214                                                                                                              | Epidemiological evaluation of equine metabolic syndrome in Arabian horses and their subgroups                                                    | 220                                                               | Influenza D virus infection dynamics at the bovine respiratory epithelial barrier: physical and functional impacts                       | 226                  | Colombatti Olivieri                                                                                                                                                 | Evaluation of Mycobacterium avium subsp. paratuberculosis DIVA vaccine in Holstein calves                                  |
|                     | 9:30                                                             |                                                                                                                                                    | 204                                                                                                                | Determinants of health and disease at the global livestock-wildlife-human interface: a scoping review                                                | 209                                                                                                                     | Prevalence and antimicrobial resistance in Salmonella infantis isolates detected across the food chain in the United States 2013-2022.                               | 215                                                                                                              | Equine parvovirus-hepatitis infection in horse herds over four years                                                                             | 221                                                               | A novel multi-omics perspective on postnatal deficiencies in cattle following transient fetal infection with Bovine Viral Diarrhea Virus | 227                  | Cohen                                                                                                                                                               | Serological responses to S protein in vaccinated horses and horses with strangles                                          |
| 9:45                | 210                                                              |                                                                                                                                                    | Risk factor analysis of Salmonella Dublin in dairy-beef farms: A PCR-based environmental sampling study            | 216                                                                                                                                                  | A multi-host SIR model for community transmission of SARS-CoV-2 among animal species                                    | 222                                                                                                                                                                  | Biomarker discovery in pregnant cattle infected with bovine viral diarrhoea virus                                | 228                                                                                                                                              | Sterle                                                            | Co-vaccination of cattle with RB51 and BCG enhances the BCG-specific CD4+ T cell response                                                |                      |                                                                                                                                                                     |                                                                                                                            |
| 10:00 - 10:30       | Break                                                            |                                                                                                                                                    | Break                                                                                                              |                                                                                                                                                      | Break                                                                                                                   |                                                                                                                                                                      | Break                                                                                                            |                                                                                                                                                  | Break                                                             |                                                                                                                                          | Break                |                                                                                                                                                                     |                                                                                                                            |
|                     | Session 45                                                       | Animal Vaccinology Research Network Symposium                                                                                                      | Session 46                                                                                                         | Microbiome                                                                                                                                           | Session 47                                                                                                              | Diagnostic testing 2                                                                                                                                                 | Session 48                                                                                                       | Swine influenza                                                                                                                                  | Session 49                                                        | Virology 3                                                                                                                               | Session 50           | Vaccinology 3                                                                                                                                                       |                                                                                                                            |
| Tuesday, Jan 21     | 10:30 AM                                                         | 229<br><b>Dr. Gavin J. Wright</b><br>"Genome-led vaccine target discovery for animal African trypanosomiasis"                                      | 231                                                                                                                | Fecal microbiota transplantation modulates jejunal host-microbiota interface in weaning piglets                                                      | 237                                                                                                                     | Rapid chute-side antibiotic resistance detection tool to improve antimicrobial stewardship and optimize risk management while controlling bovine respiratory disease | 243                                                                                                              | Detections of human seasonal H3N2 influenza A virus reverse-zoonoses in swine during the 2022-2024 influenza season                              | 249                                                               | Zinc finger antiviral protein affects Zika, Japanese encephalitis, and West Nile virus infection phenotypes                              | 255                  | Heterologous prime-boost immunization of two-component PWDVax protected weaned pigs against F18 enterotoxigenic Escherichia coli (ETEC) post-weaning diarrhea (PWD) |                                                                                                                            |
|                     | 10:45                                                            |                                                                                                                                                    | 232                                                                                                                | Linking Salmonella populations in feedlot holding ponds to cattle feces and the overall microbial community                                          | 238                                                                                                                     | Random forest models for antimicrobial minimum inhibitory concentration imputation                                                                                   | 244                                                                                                              | Impact of maternal antibodies and weaning on the replication and transmission of human H3N2 influenza A in piglets                               | 250                                                               | Susceptibility assessment of intestinal organoids from North American big brown bat to swine enteric coronavirus                         | 256                  | Weaver                                                                                                                                                              | Epitope-optimized vaccine elicits cross-species immunity against Influenza A virus for potential pandemic protection       |
|                     | 11:00                                                            |                                                                                                                                                    | 233                                                                                                                | Defining microbiomes of ixodid ticks collected from the Chernobyl Exclusion Zone 30 years post nuclear catastrophe                                   | 239                                                                                                                     | Supervised machine learning to diagnose respiratory disease-affected bovine lung histopathology photomicrographs                                                     | 245                                                                                                              | Adaptation of a human-origin H3N2 Influenza A virus to pigs restricts receptor specificity for extended glycans and enhances sialic acid binding | 251                                                               | Equine arteritis virus hijacks the CXCL16/CXCR6 axis to infect Equine CD3+ T lymphocytes                                                 | 257                  | Wilson                                                                                                                                                              | Intrauterine vaccines using nanoparticles encapsulating antigens and adjuvants to make semen-friendly vaccine formulations |
|                     | 11:15                                                            | 230<br><b>Dr. Laura Miller</b><br>"Translating Omics Research into Improved Swine Health"                                                          | 234                                                                                                                | How relatedness between foals impacts the developing microbiome and resistome                                                                        | 240                                                                                                                     | A 4-Plex qPCR Assay for the quantification of pathogens in liver abscesses and ruminal tissues of feedlot cattle                                                     | 246                                                                                                              | Size distribution and viral load of influenza A virus-laden particles emitted from pigs over the course of infection                             | 252                                                               | Investigating the relationship between the cellular protein ZFP36L1 and autophagy in suppressing Norovirus replication                   | 258                  | Liu                                                                                                                                                                 | Engineering a recombination-resistant live attenuated vaccine candidate for Porcine Epidemic Diarrhea Virus                |
|                     | 11:30                                                            |                                                                                                                                                    | 235                                                                                                                | Microbiota modulation of chickens impacts Salmonella colonization and host gene expression                                                           | 241                                                                                                                     | A novel serological test for strangles in horses                                                                                                                     | 247                                                                                                              | Emerging swine influenza virus circulation in Korea challenges the protective efficiency of current SIV vaccines                                 | 253                                                               | ZFP36L1 suppresses virus replication beyond poly(a) tail deadenylation                                                                   | 259                  | Wilson                                                                                                                                                              | Vaccination with a Lawsonia intracellularis vaccine mitigated some disease parameters but failed to affect shedding        |
| 11:45               | 236                                                              |                                                                                                                                                    | Microbiome and Salmonella dynamics in pork trim meat and contact surfaces in a commercial pork processing facility | 242                                                                                                                                                  | Development of digital PCR assay for detection of Taylorella equigenitalis causing Contagious Equine Metritis in horses | 248                                                                                                                                                                  | Detection of distinct hemagglutinin and neuraminidase Influenza lineages in single pigs across production stages | 254                                                                                                                                              | Chronic hepatitis in horses with equine hepatitis virus infection | 260                                                                                                                                      | Kaesser              | Immunological lessons on how to best protect pigs against porcine reproductive and respiratory syndrome virus.                                                      |                                                                                                                            |
| 12:00               | Break                                                            |                                                                                                                                                    | Break                                                                                                              |                                                                                                                                                      | Break                                                                                                                   |                                                                                                                                                                      | Break                                                                                                            |                                                                                                                                                  | Break                                                             |                                                                                                                                          | Break                |                                                                                                                                                                     |                                                                                                                            |
| 12:15 - 1:30 PM     | Closing Comments and Award Presentations - Chicago D (5th Floor) |                                                                                                                                                    |                                                                                                                    |                                                                                                                                                      |                                                                                                                         |                                                                                                                                                                      |                                                                                                                  |                                                                                                                                                  |                                                                   |                                                                                                                                          |                      |                                                                                                                                                                     |                                                                                                                            |

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