

53rd AASV Annual
Meeting Program

DEFINING OUR FUTURE



ANTIBIOTIC USE | WELLBEING | DISEASE TREATMENT, PREVENTION, CONTROL | NUTRITION | TECHNOLOGY | ADVOCACY

February 26 – March 1, 2022
Indianapolis, Indiana

aasv.org/annmtg

Message from the Program Chair, Dr. Mike Senn

Welcome to Indianapolis, and welcome back!

With the significant changes over the past two years, I'm proud of the resilience and focus that the membership has continuously demonstrated. The theme for this year's meeting is "Defining Our Future." As an organization, we continuously look ahead to see what issues and challenges are on the horizon, and proactively address them in our planning and preparation.



The 2022 Program Planning Committee's preparation to include current, applicable topics delivered by the most relevant speakers was outstanding. The gratitude for the program belongs to them. Please take time to show them your appreciation for their efforts while we are all together at the meeting.

The program begins with excellent pre-conference seminars discussing important topics including influenza, diagnostics, antimicrobial clinical pharmacology, the risk of feed for pathogen introduction, applied field research, nutrition, data-driven decision making, leadership, and a look into what tools may be available to swine veterinarians ten years from now.

Sunday afternoon, be sure to attend the Industrial Partners sessions and support the tremendous efforts of our student members during the Student Seminar session.

Monday morning, Dr. Angela Baysinger will deliver the Howard Dunne Memorial lecture, "Leaping into the future: Sit down, buckle up, and hang on." Dr. Jim Kober will deliver the Alex Hogg Memorial lecture, "Learning for the future" and address the importance of life-long learning, providing a unique perspective of his personal experiences with Dr. Hogg while they were peers during post-graduate education at two distinctly different times in their individual professional careers. As we define our future as an organization within an increasingly diverse

world, it is important that we continue to create a culture that affirms diversity, equity and inclusion. Education plays an important role in the pursuit of a more diverse and inclusive organization. We are privileged to have four AASV members who will share their perspectives and experiences with diversity, equity, and inclusion to begin to provide us with awareness and knowledge to better meet the needs of all members and create a welcoming environment.

The Monday concurrent sessions will provide information on a broad variety of topics including PRRS, animal welfare, sustainability, resiliency, advocacy, and disease prevention, control, and elimination.

The meeting concludes Tuesday morning with a session focused on foreign animal disease preparedness and response. A panel discussion with state veterinarians will provide insights into current preparedness and response plans at the state level and input on the areas for practitioner involvement in the process. The important role of feed ingredients in the potential introduction of pathogens and research on mitigation strategies to reduce that risk will be discussed. Dr. Rodger Main will provide an update on the Swine Health Improvement Plan. The meeting will conclude with Dr. Joseph Yaros providing first-hand, personal experiences with African swine fever.

I greatly appreciate the opportunity to serve as this year's program chair. Without the significant efforts of the program committee, AASV staff, and more than 200 speakers who committed to share their knowledge through a proceedings paper and presentation, this meeting would not be possible. I'm grateful for the commitment that each of you made to make this meeting successful. Thank you!

Sincerely,

Mike Senn

Program chair

PROGRAM COMMITTEE

Mike Senn, Program Chair

Mary Battrell

Melissa Billing

Justin Brown

Scott Dee

Attila Farkas

Jordan Gebhardt

Jeff Harker

Bill Hollis

Megan Inskeep

Eva Jablonski

Jessica Law

Wesley Lyons

Christine Mainquist-Whigham

Meghann Pierdon

Sarah Probst Miller

Cristina Quijano Alvarez

Chris Rademacher

Jessica Risser

Rebecca Robbins

Marisa Rotolo

Brent Sexton

Chris Sievers

Jon Van Blarcom

PROGRAM & PROCEEDINGS

MOBILE APP

Keep track of when and where you need to be with the free AASV mobile conference app! It's loaded with the most up-to-date schedule, speaker and exhibitor details, maps of the meeting rooms, and links to proceedings papers. Use it to create your personal schedule and "to do" list. The app will be available for download to iOS and Android devices using the code emailed to conference registrants February 15.

PROCEEDINGS

AASV members and conference attendees will be able to download all proceedings papers (including seminar papers) from the AASV website prior to and during the meeting.

For more information:
aasv.org/annmtg



Register online at aasv.org/annmtg

REGISTRATION & FEES

Register online at aasv.org/annmtg

ON-SITE REGISTRATION

Registration desk located near escalators in JW Grand Foyer East (3rd floor)

| | |
|-----------------------|--------------------|
| Saturday, February 26 | 7:00 AM – 5:00 PM |
| Sunday, February 27 | 7:00 AM – 5:00 PM |
| Monday, February 28 | 7:00 AM – 5:00 PM |
| Tuesday, March 1 | 7:00 AM – 12:00 PM |

FEES

| | |
|--|--------------|
| AASV member pre-registration by Feb 4 | \$415 |
| AASV member registration after Feb 4 | \$515 |
| Non-member veterinarians | \$560 |
| Add'l Tech Table representatives (limit 3) | \$560 |

Veterinary students:

Register for free if you are a 2021-22 AASV Student Member. Join/register at aasv.org/annmtg

Graduate students:

Join AASV (½ regular member dues) and register for the meeting at ½ the member rate.

Non-veterinarians:

Must meet eligibility criteria to attend.

See aasv.org/annmtg/2022/reginfo.php for details.

REGISTRATION DUE DATES

February 4: Last day for pre-registration rate

February 18: Last day to register online

February 19: Registration CLOSED until on-site Feb 26

CONFERENCE HOTEL

JW Marriott Indianapolis

10 S West Street

Indianapolis, Indiana

aasv.org/annmtg/2022/lodging.php

CONTINUING EDUCATION CREDIT

Up to twenty (20) credit hours of veterinary continuing education are available for attendance during the regular meeting sessions on Sunday 8:00 AM through Tuesday 12:00 PM. Four (4) additional credit hours are available for attendance at a Saturday pre-conference seminar.

TRAVEL ADVISORY

International
Travelers:

**PRIORITIZE
BIOSECURITY**



As you travel to the AASV Annual Meeting, do your part to protect the US swine herd from foreign animal diseases, including African swine fever (ASF), classical swine fever (CSF), and foot-and-mouth disease (FMD).

If you are traveling from a country or have recently visited a country with cases of ASF, CSF, or FMD, remember to prioritize biosecurity:

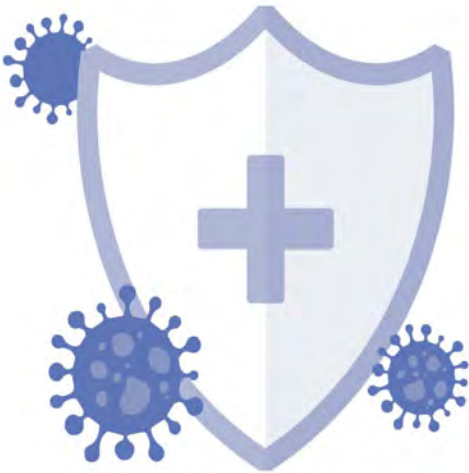
- Declare international farm visits upon entry into the United States
- Do not bring prohibited foods into the United States
- Follow farm biosecurity measures and downtime requirements (recommended minimum 5 nights with no swine contact) if visiting a US farm
- Do not wear any items, including footwear, from your international farm visit to a US farm

HEALTH ADVISORY

The health and well-being of all meeting attendees is a top priority

The AASV will follow the most current guidelines available from the Centers for Disease Control and Prevention and state and local health departments at the time of the meeting.

Please visit aasv.org/annmtg for the most up-to-date information.



We are counting on each attendee to be accountable for everyone's health. Please do not attend the annual meeting if you experience signs or symptoms consistent with COVID-19.

If you experience any signs or symptoms consistent with COVID-19 during the annual meeting, please refrain from participating in any sessions or events and notify AASV staff by emailing covid@aasv.org.

SATURDAY, FEBRUARY 26

Daily Schedule

7:00 AM

Registration Desk open

JW Grand Foyer East (3rd floor)

AASV Committee Meetings

Location: White River Conference Level

1:00 PM

PRE-CONFERENCE SEMINARS (additional fees apply)

#1 Practice Tips: Learn from the Past and Shape Our Future (page 14)

Location: White River Ballroom AB

#2 Influenza (page 16)

Location: White River Ballroom CD

#3 Diagnostics: Opportunities, Advancements, and Implementation (page 18)

Location: White River Ballroom GH

#4 Antimicrobial Clinical Pharmacology (page 20)

Location: White River Ballroom IJ

#5 Feed Risk: Transboundary and Domestic (page 21)

Location: White River #101-102

#6 Applied Field Research (page 22)

Location: White River #103-104

5:00 PM

OPEN EVENING

There is no reception scheduled for Saturday evening.
Enjoy Indianapolis!

6:00 PM

Veterinary Student Trivia Event (page 57)

Sponsored by: **MERCK ANIMAL HEALTH**

Location: OP Italian Restaurant (JW Marriott lobby)



SUNDAY, FEBRUARY 27

Daily Schedule

6:00 AM

Yoga Exercise Class (page 58)

Hosted by: **DSM ANIMAL NUTRITION & HEALTH**

Location: White River #101-102

6:30 AM

AASV Student Breakfast

Location: Griffin Hall (2nd floor)

7:00 AM

Praise Breakfast (page 59)

Sponsored by: **STUART PRODUCTS**

Location: JW Grand Ballroom 7-8

Registration Desk open

Location: JW Grand Foyer East (3rd floor)

8:00 AM

PRE-CONFERENCE SEMINARS (additional fees apply)

#7 Swine Health through Nutrition (page 24)

Location: White River Ballroom CD

#8 The Swine Vet's Toolbox in 2032 (page 25)

Location: White River Ballroom IJ

#9 Data-Driven Decision Making (page 26)

Location: White River Ballroom AB

#10 Swine Medicine for Students (page 28)

Location: White River Ballroom GH

#11 Vet CEO 2.0: Leading Living Cultures on Teams
(page 29)

Location: White River #105

RESEARCH TOPICS (page 31)

Location: White River Ballroom F

Continued on next page

SUNDAY, FEBRUARY 27

Daily Schedule

12:00 PM

POSTER SESSION OPEN

Authors in attendance: 12:00 – 1:00 PM

Location: JW Grand Ballroom Foyer

Veterinary Student Posters (page 42)

Sponsored by **ZOETIS**

Research Topics Posters (page 44)

Industrial Partners Posters (page 48)

AASV FOUNDATION LUNCHEON

(Advance registration required)

Location: JW Grand Ballroom 7

1:00 PM

CONCURRENT SESSIONS

#1 Student Seminar (page 33)

Sponsored by **ZOETIS**

Location: White River Ballroom ABCD

#2 Industrial Partners (page 35)

Location: White River Ballroom E

#3 Industrial Partners (page 38)

Location: White River Ballroom F

#4 Industrial Partners (page 40)

Location: White River Ballroom GHJ

8:30 PM – 11:00 PM

STUDENT RECEPTION (page 60)

Sponsored by **MERCK ANIMAL HEALTH**

Location: Griffin Hall (2nd floor)

Security Message

In the event a person or group attempts to disrupt the meeting, report their activities immediately to hotel security personnel or an AASV staff member.

Do not engage or incite anyone exhibiting disruptive behavior.



MONDAY, FEBRUARY 28

Daily Schedule

7:00 AM

Registration Desk open

Location: JW Grand Foyer East (3rd floor)

8:00 AM – 12:15 PM

GENERAL SESSION: Defining Our Future (page 51)

Location: JW Grand Ballroom 6-10

Howard Dunne Memorial Lecture:

Leaping into the future: Sit down, buckle up, and hang on

Dr. Angela Baysinger

Alex Hogg Memorial Lecture:

Learning for the future

Dr. James Kober

9:00 AM – 5:00 PM

TECHNICAL TABLES EXHIBIT OPEN (pages 64-65)

Location: JW Grand Ballroom 1-5

12:15 PM

LUNCHEON (page 61)

Sponsored by **BOEHRINGER INGELHEIM**

Location: White River Ballroom

2:00 PM – 5:30 PM

CONCURRENT SESSIONS

#1 PRRS RFLP 1-4-4 (page 52)

Location: JW Grand Ballroom 9-10

#2 Sustainability and Animal Welfare (page 53)

Location: JW Grand Ballroom 7-8

#3 Disease Prevention, Control, Elimination (page 54)

Location: JW Grand Ballroom 6

6:30 PM – 8:30 PM

AASV AWARDS RECEPTION (page 61)

Sponsored by **MERCK ANIMAL HEALTH**

Location: White River Ballroom

AASV FOUNDATION AUCTION (page 62)

Location: White River Ballroom

TUESDAY, MARCH 1

Daily Schedule

7:00 AM

Registration Desk open

Location: JW Grand Foyer East (3rd floor)

BREAKFAST and AASV ANNUAL BUSINESS MEETING

Location: White River Ballroom E

8:00 AM

GENERAL SESSION: Foreign Animal Disease

Preparedness and Response (page 55)

Location: JW Grand Ballroom 6-10

8:00 AM – 12:00 PM

TECHNICAL TABLES EXHIBIT OPEN (pages 64-65)

Location: JW Grand Ballroom 1-5

12:00 PM

MEETING CONCLUDES

AASV OFFICERS

President

Dr. Mary Battrell

Vice President

Dr. Bill Hollis

President Elect

Dr. Mike Senn

Past President

Dr. Jeffrey Harker

DISTRICT DIRECTORS

District 1 (Northeast US)

Dr. Melissa Billing

District 7 (Western US)

Dr. Megan Potter

District 2 (Southeast US)

Dr. Sara Hough

District 8 (NE, SD)

Dr. Christine Mainquist-Whigham

District 3 (AR, KY, MO)

Dr. Gregory Cline

District 9 (MN, ND)

Dr. Chase Stahl

District 4 (IN, MI)

Dr. Megan Inskeep

District 10 (Mexico)

Dr. Cristina Quijano Alvarez

District 5 (IL, WI)

Dr. Attila Farkas

District 11 (Canada)

Dr. Susan Detmer

District 6 (IA)

Dr. Chris Rademacher

SATURDAY MORNING Committee Meetings

Any AASV member or student member may attend the committee meetings; however, only committee members are eligible to vote. For information on committee activities, or to join a committee, see aasv.org/aasv/committee.php.

Date: Saturday, February 26

Location: White River Conference Level

(1st floor; accessible only from second floor; see maps on pages 66-68)

7:15 – 9:45 AM

Meeting room

Early Career

White River Ballroom AB

Influenza

White River #102

Pharmaceutical Issues

White River #101

Pig Welfare

White River Ballroom GH

PRRS Task Force

White River #103

Transboundary/Emerging
Diseases

White River Ballroom CD

8:00 – 9:45 AM

Meeting room

Pork Safety

White River #104

10:00 AM – 12:00 PM

Meeting room

Boar Stud

White River #102

Communications

White River #104

Diversity, Equity, and Inclusion

White River #105

Human Health

White River #101

Nutrition

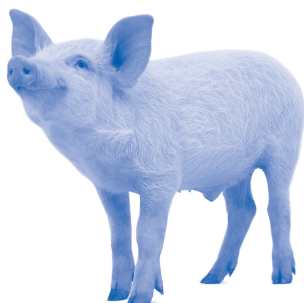
White River #108

Operation Main Street

White River #109

Student Recruitment

White River #103



SATURDAY SEMINAR 1

Practice Tips

Practice Tips: Learn from the Past and Shape Our Future

Date: Saturday, February 26

Time: 1:00 – 5:00 PM

Location: White River AB

Fee: \$95

Seminar chair: Melissa Billing

In this 2022 practice tips preconference seminar, AASV members reveal a strategy that has worked for them in the past, covering a wide variety of topics. These veterinarians will help shape the future of our profession by offering practical advice that is useful for both experienced and new practitioners. Prizes, sponsored by AASV, will be awarded to the top three presenters.

- 1:00** Welcome and introductions
Melissa Billing
- 1:05** Look, listen, and learn
Noel Garbes
- 1:20** Navigating the tasks of a new graduate and handling a pandemic
Abby Vennekotter
- 1:35** Tips and tricks for interpreting PRRS whole genome sequencing in the field
Jessica Risser
- 1:50** Alternative diagnostic techniques
Thomas Petznick
- 2:05** I'd tap that!
Gabi Doughan
- 2:20** Learning to work with yourself
Jeff Harker
- 2:35** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL

SATURDAY SEMINAR 1

Practice Tips

- 3:05** Spit happens: Update on enteric diagnostics
Jessica Seate
- 3:20** Ghost piglets
Tom Gillespie
- 3:35** Mycoplasma exposure: Know before you blow
Elizabeth Noblett
- 3:50** Statistics 101
Steve Tousignant
- 4:05** Managing burnout
Emily Byers Taylor
- 4:20** Don't drink that!
Meredith Petersen
- 4:35** New use for an old device
Tom Fangman
- 4:50** Conclusion
Melissa Billing
- 5:00** Seminar concludes

STUDENT TRIVIA EVENT



Sponsored by:

MERCK ANIMAL HEALTH

Saturday, February 26

6:00 – 8:00 PM

OP Italian Restaurant

SATURDAY SEMINAR 2

Influenza

Influenza

Date: Saturday, February 26

Time: 1:00 – 5:00 PM

Location: White River CD

Fee: \$95

Seminar chair: Daniel Boykin

The goal of this seminar is to provide attendees with the most current information on influenza in swine. The focus will be to highlight surveillance, provide the perspectives of practitioners on control methods, and to recognize the public health implications of this zoonotic pathogen.

- 1:00** Target flu surveillance
Marie Culhane
- 1:20** Overview of the USDA surveillance data
Amy Vincent
- 1:40** Defining nomenclature for influenza A virus status
Cameron Schmitt
- 2:00** Heterologous prime boost vaccination strategies and possible uses in controlling influenza
Vic Cortese
- 2:20** Prime and boost with heterologous killed flu antigens
Clayton Johnson
- 2:40** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 3:10** Field experience with Phibro's tailor-made flu vaccine
Matt Ackerman
- 3:30** Experiences controlling influenza utilizing custom RNA particle technology in a commercial production system
T'Lee Girard
- 3:50** Influenza A virus field research
Andrew Bowman

SATURDAY SEMINAR 2

Influenza

- 4:05** Case studies of variant influenza in Canada, 2020-2021
Susan Detmer
- 4:20** Public health aspects of influenza A virus in swine
Heather Fowler
- 4:35** Influenza panel discussion
All speakers
- 5:00** Seminar concludes

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SATURDAY SEMINAR 3

Diagnostics

Diagnostics: Opportunities, Advancements, and Implementation

Date: Saturday, February 26

Time: 1:00 – 5:00 PM

Location: White River GH

Fee: \$95

Seminar chairs: Brent Sexton

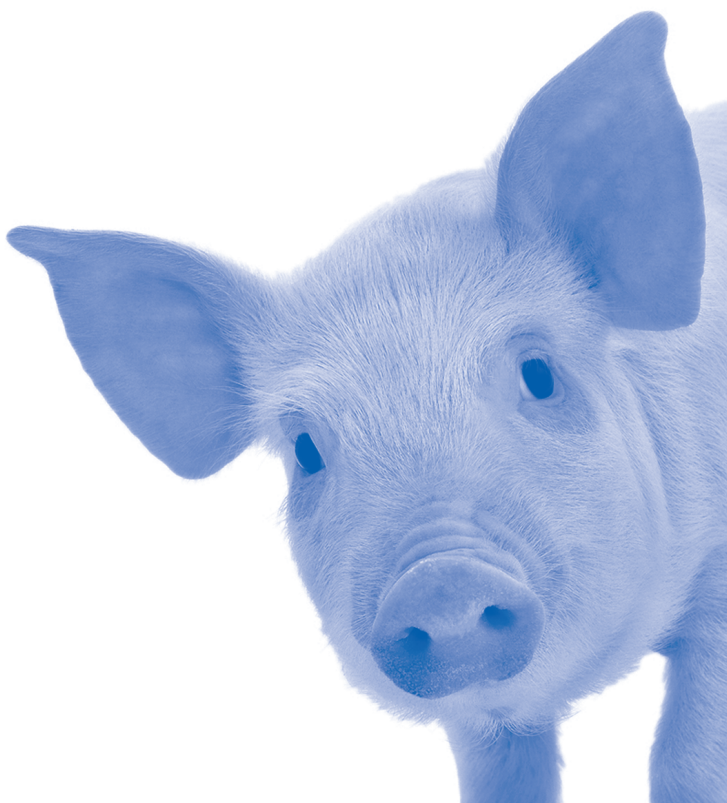
This seminar is aimed at providing practitioners and diagnosticians alike with updates and insights on advancements in diagnostics, as well as how these practices can be implemented in the field. Featuring a mix of diagnosticians, consultants, and production system veterinarians, this seminar will have something (or several somethings!) for everyone.

- 1:00** Should I submit something?
 Optimizing diagnostic investigations
Jerry Torrison
- 1:30** Applications of next generation sequencing to
 swine diagnostics
Albert Rovira
- 1:50** Molecular testing options to detect wild-type vs
 vaccine-like PRRSV
Phil Gauger
- 2:10** I see blisters; now what?
Kathleen Wood
- 2:30** Demystifying diagnostics: When and what to test
Marisa Rotolo
- 3:00** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 3:30** Inside out: Laboratorian to practitioner
Darin Madson
- 3:50** Slat-level diagnosis: Enhancing the health acumen
 of field team members
Tyler Bauman
-

SATURDAY SEMINAR 3

Diagnostics

- 4:10** Best practices for sample collection, autogenous vaccines
Ryan Strobel
- 4:35** Rotavirus: Current experiences and thoughts on “feedback” diagnostics
Jeremy Pittman
- 5:00** Seminar concludes



SATURDAY SEMINAR 4

Pharmacology

Antimicrobial Clinical Pharmacology

Date: Saturday, February 26

Time: 1:00 – 5:00 PM

Location: White River IJ

Fee: \$95

Seminar chair: Justin Brown

This seminar focuses on information resources, critical analysis of data (both client-generated and clinical trials), and an understanding of where other information fits for making therapeutic decisions in swine practice settings. Subjects covered include antimicrobial approaches to infectious disease and antimicrobial resistance with an emphasis on understanding antimicrobial susceptibility testing.

Participants will be asked to submit a minimum of one case or question representing a challenge they face in therapeutic decision making. A focus throughout the seminar is critical analysis of our own clinical observations combined with available evidence. Common threads across all subjects include our responsibilities to animal welfare, client sustainability, food safety, and public health.

- 1:00** Pivot points for antimicrobial decisions in swine
Mike Apley
- 2:00** Making sense of susceptibility: Do you really know what S, I, and R mean?
Mike Apley
- 2:45** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 3:15** Antimicrobial resistance: What are your choices affecting?
Justin Brown
- 4:00** The regulatory landscape: Changes ahead
Locke Karriker
- 5:00** Seminar concludes

SATURDAY SEMINAR 5

Feed Risk

Feed Risk: Transboundary and Domestic

Date: Saturday, February 26

Time: 1:00 – 5:00 PM

Location: White River #101-102

Fee: \$95

Seminar chair: Jordan Gebhardt

This seminar will focus on the latest information available regarding the risk of pathogen transmission through swine feed. The topic will be addressed from both a transboundary and endemic pathogen perspective.

- 1:00** Risk of feed for transboundary swine diseases
Megan Niederwerder
 - 1:30** The risk and mitigation of foot-and-mouth disease virus infection of pigs through consumption of contaminated feed
Jonathan Arzt
 - 2:00** Detecting pathogens in feed: Challenges and lessons learned
Diego Diel
 - 2:20** Distribution of African swine fever virus (ASFV) during manufacture of swine feed
C. Grace Elijah
 - 2:40** Soy product import into the United States
Allison Blomme
 - 3:00** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
 - 3:30** PEDV field experiences in China
Arkin Wu
 - 3:50** Feed mill and transport biosecurity
Melissa Hensch
 - 4:10** Field case and experimental work with PRRSV in feed
Scott Dee
 - 4:25** Practical feed biosecurity: How to create a team with feed mills
Roger Cochrane
 - 4:45** Feed risk panel discussion
All speakers
-

SATURDAY SEMINAR 6

Applied Field Research

Applied Field Research

Date: Saturday, February 26

Time: 1:00 – 5:00 PM

Location: White River #103-104

Fee: \$95

Seminar co-chairs: Gustavo Silva and Chris Rademacher

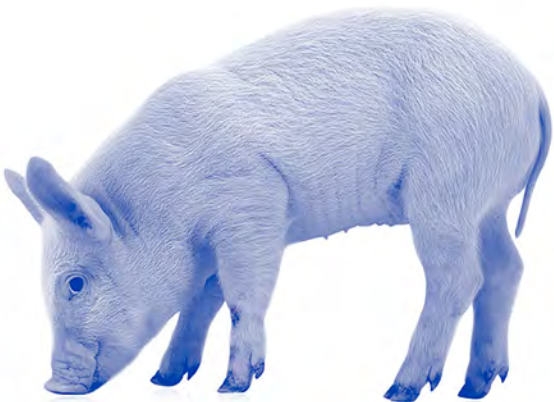
The objective of this seminar is to review key concepts on trial design and implementation of applied research under commercial conditions. The speakers will be sharing their field experiences designing and implementing trials, interpreting the results, and the decision process to implement technologies/interventions in their companies.

- 1:00** Introduction
Gustavo Silva
- 1:04** First, what is the question/objective? Lessons learned working with field veterinarians
Derald Holtkamp
- 1:25** Field research types and examples of application
Daniel Linhares
- 1:46** Data collection in field trials to find meaningful responses
Mike Tokach
- 2:07** Common issues in field study design and data analyses and how to avoid and address them
Deb Amodie
- 2:35** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 3:05** Structured process for prioritizing research
Clint Schwab
- 3:28** Experiences conducting field research trials: Dos and don'ts
Beau Peterson
-

SATURDAY SEMINAR 6

Applied Field Research

- 3:51** Experiences assessing health interventions in sow farms and assessing the success of whole production system implementation
Caleb Shull
- 4:14** From product development to field implementation
Joel Spencer
- 4:37** Evaluation of health interventions and how to assess whole system implementation in down stream (wean to finish)
Marlin Hoogland
- 5:00** Seminar concludes



SUNDAY SEMINAR 7

Swine Nutrition

Swine Health through Nutrition: Feeding the Pig in a Changing World

Date: Sunday, February 27

Time: 8:00 AM – 12:00 PM

Location: White River CD

Fee: \$95

Seminar chair: Alexander Hintz

Swine veterinarians have long been focused on the health of the pig. In our changing environment, we need to be aware of nontraditional and novel interventions via nutrition to maximize pig health. With that, we also need a good understanding of basic nutrition principles. This seminar will provide the basics on feeding our highly prolific pigs. You'll learn how to analyze data in feed trials as you begin to explore alternative interventions. In addition, you'll hear from experts in multiple industries about the portfolio of nutritional interventions available to improve animal health. Expand your toolbox to improve pig health via nutrition!

8:00 A 45-minute "cram session" on the basics of swine nutrition and feed protocol execution

Trey Kellner

8:50 Applied statistical concepts for enhancing between-treatment inferences in swine nursery and grow-finish studies

Jeff Chewing

9:40 REFRESHMENT BREAK – Sponsored by:

AURORA PHARMACEUTICAL

10:10 Antibiotic alternatives, challenges, experiences, and lessons from a poultry production perspective

Roy Brister

11:00 Future-ready nutritional strategies to optimize swine health in an antibiotic-free market

Casey Bradley

11:50 Wrap-up

12:00 Seminar concludes

SUNDAY SEMINAR 8

2032 Swine Vet Toolbox

The Swine Vet's Toolbox in 2032

Date: Sunday, February 27

Time: 8:00 AM – 12:00 PM

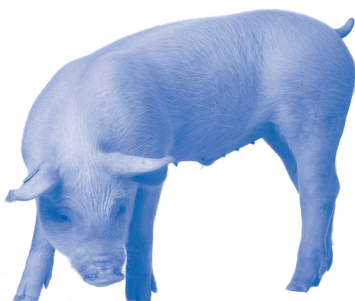
Location: White River IJ

Fee: \$95

Seminar chair: Justin Brown

This seminar will cover topics that will help practitioners prepare for the next decade of caring for and treating swine. Topics include antibiotic-free systems, the anti-infective pipeline, vaccines and immunotherapies, water, and pain mitigation.

- 8:00** Lessons learned and what to expect in an antibiotic-free system
Pete Schneider
- 8:35** Anti-infective pipeline, a global perspective
Mike Apley
- 9:15** Veterinary vaccines: Next generation of technology
Mike Roof
- 10:00** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 10:30** Water: Pathogens, detection, and disinfection
Phil Olsen
- 11:15** Future opportunities for pain mitigation on farm
Monique Pairis-Garcia
- 12:00** Seminar concludes



SUNDAY SEMINAR 9

Data-Driven Decisions

Data-Driven Decision Making

Date: Sunday, February 27

Time: 8:00 AM – 12:00 PM

Location: White River AB

Fee: \$95

Seminar chair: Daniel Linhares

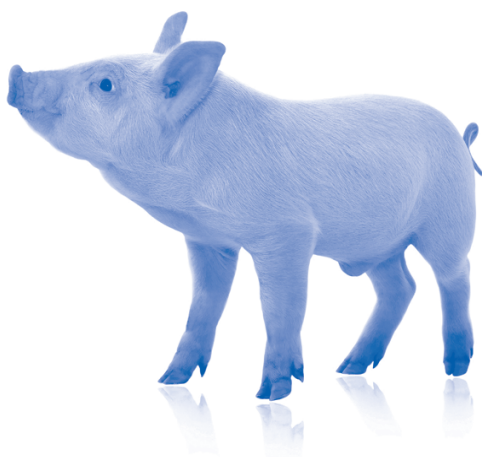
As the swine industry continues to evolve and adopt new and emerging technologies, there is an accumulation of multiple types of data including health, productivity, environmental conditions, marketing, biosecurity, and beyond. How do veterinarians and producers take full advantage of these, transforming diverse and disperse data points into useful information for informed decision making? This workshop provides examples of tools and concepts being applied in the US swine industry focused on precision swine health and productivity management.

- 8:00** Introduction
Daniel Linhares
- 8:05** PRRSV management decisions
Amy Maschhoff
- 8:23** System-wide *Mycoplasma* elimination
Melissa Hensch
- 8:41** Control versus elimination versus depopulation for diseases: How to decide?
Paul Yeske
- 8:59** How to manage feed supply risk?
Pedro Urriola
- 9:17** Question and answer panel
Maschhoff, Hensch, Yeske, Urriola
- 9:39** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 10:09** Building a new sow farm 5 years ago, today, and 10 years from now: What are the commonalities and the differences?
Mark Schwartz
-

SUNDAY SEMINAR 9

Data-Driven Decisions

- 10:27** Using field data to create bioeconomic models for decision making
Gustavo Silva
- 10:45** How to effectively run a swine production system
Noel Williams
- 11:03** Data-driven management of teams
Beau Peterson
- 11:21** Effective time management: Getting things done
Giovani Trevisan
- 11:39** Question and answer panel
Schwartz, Silva, Williams, Peterson, Trevisan
- 12:00** Seminar concludes



SUNDAY SEMINAR 10

Swine Medicine for Students

Swine Medicine for Students

Date: Sunday, February 27

Time: 8:00 AM – 12:00 PM

Location: White River GH

Fee: \$95; No charge for veterinary students or 2020 or 2021 DVM graduates

Seminar co-chairs: Jeremy Pittman and Angie Supple

The Swine Medicine for Students seminar's main goal is to supplement veterinary students and recent graduates with practical knowledge and tools they will need and use in practice. This year's topic will center on the use of water-soluble antibiotics: products, use, common issues, and the dreaded calculations of how to mix water meds! The first portion of the seminar will be teaching and training on water meds, followed by interactive real-world cases after the break, when groups will use their knowledge to select the appropriate antibiotic and calculate the proper mixing/dosage rate for the cases.

8:00 Introduction

Jeremy Pittman and Angie Supple

8:05 Water-soluble medication: Selection and calculations

Jeremy Pittman and Angie Supple

9:30 REFRESHMENT BREAK – Sponsored by:

AURORA PHARMACEUTICAL

10:00 Interactive cases: Water-soluble medication selection and calculations

Jeremy Pittman and Angie Supple

12:00 Seminar concludes

STUDENT RECEPTION



Sponsored by:

MERCK ANIMAL HEALTH

Sunday, February 27

8:30 – 11:00 PM

Griffin Hall

SUNDAY SEMINAR 11

Vet CEO 2.0

Vet CEO 2.0: Leading Living Cultures on Teams

Date: Sunday, February 27

Time: 8:00 AM – 12:00 PM

Location: White River #105

Fee: \$95

Seminar chair: Sarah Probst Miller

Values and behavior drive culture. It is one thing for a veterinary leader to envision a value. It is another to make sure it is living. In this session, veterinary leaders will share their experiences as leaders working to create living cultures on teams in their business, on farm, and/or with fellow veterinarians. Speakers will share what worked, what didn't, and what they would do differently the next time around. From handling challenging situations to reducing polarization to leading a culture of diversity, equity, inclusion, and wellness, learn from the experience of your colleagues to sharpen your ability to lead a living culture.

Pre-seminar assignment for attendees:

To gain the most from this seminar, watch the following videos prior to the meeting:

- The Choice Point: A Map for a Meaningful Life
<https://www.youtube.com/watch?v=OV15x8LvWAQ>
- The 3 Happiness Myths:
<https://www.youtube.com/watch?v=93LFNtcR1Ok>
- The Values-Focused vs the Goal-Focused Life:
<https://www.youtube.com/watch?v=eiPxLpYlw4I>

Also, take the following online survey, read the results, and complete exercise 1 and 2 prior to the meeting. Bring your results with you to the seminar as guideposts to think about as you listen to the presentations.

<https://survey.valuescentre.com/survey.html?id=s1TAEQUStmx-pUlle-ma6Q>

8:00 Leading through challenging situations
Tara Donovan

8:30 Leading a reduction of polarization
Seth Krantz

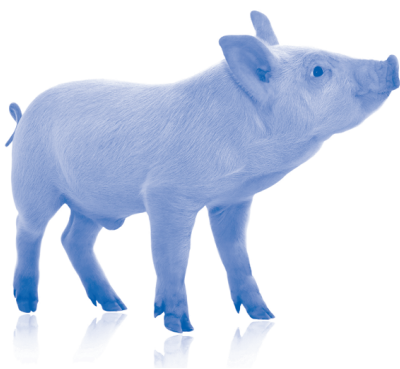
9:00 Leading the art of giving and receiving feedback
Larry Firkins

Continued on next page

SUNDAY SEMINAR 11

Vet CEO 2.0

- 9:30** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 10:00** Leading a culture of care on the farm
Michelle Sprague
- 10:30** Leading diversity, equity, and inclusion
**Panel: Lucina Galina, Wesley Lyons,
Ignacio Correas, Willie Bidot**
- 11:15** Leading wellness
Part 1: Work/life integration: What do you need
to be your best as a leader?
Part 2: Using power compassionately and effectively
Elizabeth Strand
- 12:00** Seminar concludes



SUNDAY MORNING Research Topics

Research Topics

Date: Sunday, February 27

Time: 8:00 AM – 12:00 PM

Location: White River F

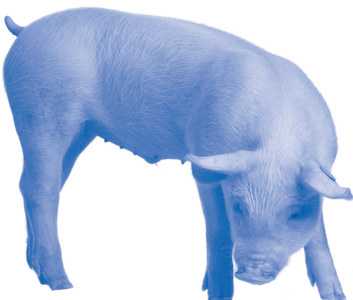
Session chair: Chris Rademacher

- 8:00** Breed-to-finish risk factors associated with increased proportion of lightweight pigs marketed
Edison Magalhaes
- 8:15** A novel production model for nursing piglets from birth to the end of nursery phase
Mark Schwartz
- 8:30** Quantification of decontamination strategies for semitruck cabs
C. Grace Elijah
- 8:45** Early detection of trade-impacting swine pathogens: An epidemiological modeling study
Giovani Trevisan
- 9:00** Comparison of 5 ASF point-of-care assays against a standard OIE-based laboratory PCR using field samples
Christa Goodell
- 9:15** Efficacy of the "tooth extraction" (test and remove) protocol in commercial swine farms in Vietnam
Christa Goodell
- 9:30** Practical implications of the impact of pooling family oral fluids on the probability of PRRSV detection by PCR
Onyekachukwu Osemeke
- 9:45** REFRESHMENT BREAK – Sponsored by:
AURORA PHARMACEUTICAL
- 10:15** Detection of *Mycoplasma hyorhinis* in dams and piglets from birth to weaning age
Cipriano De Abreu
- 10:30** Characterization of an experimental *Mycoplasma hyopneumoniae* aerosol infection model in pigs
Cipriano De Abreu

Continued on next page

SUNDAY MORNING Research Topics

- 10:45** Detection dynamics of *Mycoplasma hyopneumoniae* under controlled aerosol exposure for gilt acclimatization
Alyssa Betlach
- 11:00** Diagnostic performance of a commercial *Mycoplasma hyopneumoniae* serum antibody ELISA using processing fluids samples from three commercial swine farms
Betsy Armenta-Leyva
- 11:15** Prevention and control of *Streptococcus equi* subspecies *zooepidemicus* infection in pigs
Samantha Hau
- 11:30** Senecavirus A in the environment of sow slaughter plants
Alexandra Buckley
- 11:45** First assessment of the time-to-negative processing fluids in breeding herds after a Senecavirus A outbreak
Guilherme Milanez Preis
- 12:00** Session concludes



SUNDAY SESSION #1

Student Seminar

Student Seminar

Sponsored by ZOETIS

Date: Sunday, February 27

Time: 1:00 – 5:15 PM

Location: White River ABCD

Session co-chairs: Andrew Bowman and Perle Zhitnitskiy

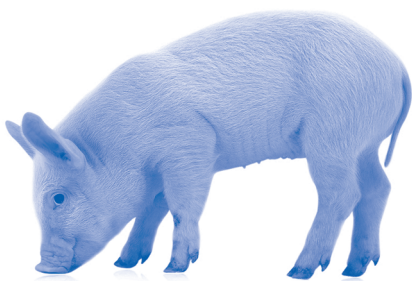
- 1:00** Microbial analysis of joints in sows euthanized for lameness
Shelby Haryslak, University of Pennsylvania
- 1:15** Comparing sample types and testing methods for endemic influenza in growing gilts
Andrea Sisk, North Carolina State University
- 1:30** Comparison of whitewash vs. Synergize® on production metrics in farrowing rooms
Kaci Way, The Ohio State University
- 1:45** A survey to investigate the implementation methods of rotavirus ice cubes on swine farms
Seth Melson, University of Minnesota
- 2:00** Evaluating the probability of PRRSV positive oral fluids in due-to-wean piglet litters
Nathan VanKley, Michigan State University
- 2:15** Evaluation of water-based foaming as a mass depopulation method for swine
Taylor Williams, The Ohio State University
- 2:30** Assessment of market trailer contamination with porcine coronaviruses and Senecavirus
Glorianne Vazquez, Iowa State University
- 2:45** REFRESHMENT BREAK
- 3:15** Retrospective investigation of the relationships between sample types, fetal death outcomes, and PCV3 PCR test results
Amanda Archer, Lincoln Memorial University

Continued on next page

SUNDAY SESSION #1

Student Seminar

- 3:30** The impact of neonatal PCV3 infection on the development of *Streptococcus suis* disease in late farrowing and nursery age pigs
Donna Presnell, Lincoln Memorial University
- 3:45** Effect of pre-farrow injectable *Lawsonia intracellularis* vaccination of sows on maternal antibodies
Hunter Everett, North Carolina State University
- 4:00** Evaluation of antibiotic treatment for the control of mortality and growth performance in PRRSV 1-4-4 positive nursery pigs
Kyle Nisley, Iowa State University
- 4:15** Evaluating the efficacy of exposing pigs to *Mycoplasma hyopneumoniae* via fogging using pooled tracheal samples
Madison Durlinger, Iowa State University
- 4:30** Fine-tuning the preparation of lung homogenate for optimal *Mycoplasma hyopneumoniae* exposure
Megan McMahon, University of Minnesota
- 4:45** Evaluation of a backpack sprayer inoculation method compared to intratracheal inoculation for the exposure of *Mycoplasma hyopneumoniae*
Katyann Graham, Iowa State University
- 5:00** Porcine epidemic diarrhea virus survivability and infectivity in hog earthen manure storages
Don Banks, North Carolina State University
- 5:15** Session concludes



SUNDAY SESSION #2

Industrial Partners

Industrial Partners

Date: Sunday, February 27

Time: 1:00 – 5:30 PM

Location: White River E

Session co-chairs: Mary Battrell and Jessica Risser

- 1:00** A whole inactivated vaccine for IAV-S was shown to provide protection in the presence and absence of maternal antibodies
Peter Winter
Phibro Animal Health Corporation
- 1:15** Pursuing American Board of Veterinary Practitioners certification in Swine Health Management
Jeff Husa
American Board of Veterinary Practitioners
- 1:30** Heritability of sow uterine prolapse in a commercial mother line
Jenelle Dunkelberger
Topigs Norsvin
- 1:45** Skin recovery and care with activated plant phenolic solutions
Deb Murray
Precision Health Technologies
- 2:00** Safety evaluation of transitioning a previously modified-live PRRS vaccinated-positive stable sow herd to Prevacent® PRRS and effects on downstream nursery performance
Matthew Ackerman
Elanco Animal Health
- 2:15** Performance and diagnostic evaluation of a lineage 1 (1-8-4) PRRS vaccine in five sow herds at various times post-vaccination
Tom Petznick
Elanco Animal Health
- 2:30** Review of detergent and disinfectant chemical exposure risks for swine veterinarians and farm production personnel: Impact of chemical choice
Jose Ramirez
Clipper Distributing

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SUNDAY SESSION #2

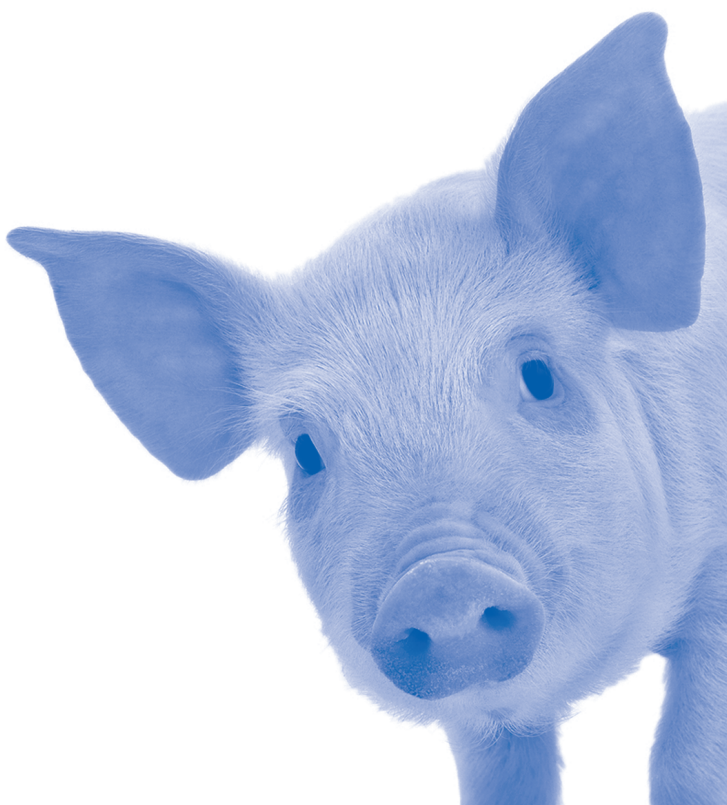
Industrial Partners

- 2:45** REFRESHMENT BREAK
- 3:15** PK/PD relationships of Tylovet® (tylosin) oral administration for the treatment of *Clostridium perfringens* in pigs
Ulrich Klein
Huvepharma
- 3:30** Production of maternal antibody titers, against a homologous and a heterologous virus, measured in piglets from sows vaccinated with two autogenous vaccines
David Nolan
Huvepharma
- 3:45** Mycotoxin contamination in United States corn and corn byproduct from 2021 harvest
Lan Zheng
DSM Animal Nutrition & Health
- 4:00** The successful use of pure benzoic acid (VevoVital) in swine feeds, alone or in combination with nature-identical flavorings (VVC), for diet acidification, improved gastrointestinal functionality, and sustainable pig performance
Sara Hough
DSM Animal Nutrition & Health
- 4:15** The relationship of ruptures between a high-health and low-health environment
John Sonderman
DNA Genetics
- 4:30** TransRite Sow Ultra: An innovative product to decrease farrowing stress
Andrew Bents
Alltech - Hubbard Feeds
- 4:45** Precision ag "lessons learned" when implementing LeeO
Tom Petznick
Prairie Systems

SUNDAY SESSION #2

Industrial Partners

- 5:00** Distribution of injected fat-soluble vitamins in plasma and tissues of nursery pigs
Young Dal Jang
Stuart Products
- 5:15** **Presentation withdrawn**
A review of the use of immune nutrition to improve herd resilience
Fredrik Sandberg
Furst McNess
- 5:15** Session concludes



SUNDAY SESSION #3

Industrial Partners

Industrial Partners

Date: Sunday, February 27

Time: 1:00 – 5:30 PM

Location: White River F

Session co-chairs: Attila Farkas and Jeff Harker

- 1:00** A new prescription platform to manage emerging and diverse pathogens
Ashley Petersen
Medgene Labs
- 1:15** Evaluation of pigs vaccinated with PRRSGard® or Prevacent® under a natural challenge model
Brandi Burton
Pharmgate Animal Health
- 1:30** How GlobalVetLink assists swine veterinarians with health and movement documentation management
Aaron Lower
GlobalVetLink
- 1:45** Efficacy of an adjuvanted porcine parvovirus (PPV) vaccine in a reproductive heterologous PPV challenge model
Rex Smiley
Boehringer Ingelheim Animal Health USA
- 2:00** Efficacy of Enterisol® Salmonella T/C in protecting against monophasic *Salmonella* I 4,[5],12:i:-
Fernando Leite
Boehringer Ingelheim Animal Health USA
- 2:15** Exploring the efficacy of a PCV2d-based vaccine under current severe PCVAD conditions
Eduardo Fano
Boehringer Ingelheim Animal Health USA
- 2:30** What to do with all this data?
Tom Stein
Maximus Systems
- 2:45** REFRESHMENT BREAK
- 3:15** Effect of tulathromycin on growth and mortality in PRRS-positive weaned pigs
Jason Hocker
Zoetis
-

SUNDAY SESSION #3

Industrial Partners

- 3:30** A bivalent PCV2 vaccine (PCV2a and PCV2b) offers biologically superior protection compared to monovalent PCV2 vaccines
Meggan Bandrick
Zoetis
- 3:45** Reproductive impact of deviations in semen dose sperm quantity and quality
Brad Belstra
MB Swine Reproduction
- 4:00** The next level of detectability: Shifting the paradigm
Greg Hastings
Neogen
- 4:15** Efficacy of Vigilex® in diets contaminated with porcine epidemic diarrhea virus (PEDV) via a modified ice-block challenge model
Ryan Strobel
Cargill Animal Nutrition & Health
- 4:30** Discovery of a key biomarker for inflammation and associated performance economics in growing pigs
Brandi Burton
NutriQuest
- 4:45** The effects of core antigen bacterin with an immunostimulant on piglet health and performance outcomes when challenged with enteric and respiratory pathogens
Charley Cull
Endovac Animal Health
- 5:00** Detecting variation in mycotoxins within single loads of feed ingredients
Adrienne Woodward
United Animal Health
- 5:15** Using ProVent® ECL to help solve an enteric health challenge within a sow unit
Brigitte Mason
United Animal Health
- 5:30** Session concludes

SUNDAY SESSION #4

Industrial Partners

Industrial Partners

Date: Sunday, February 27

Time: 1:00 – 5:30 PM

Location: White River GHJ

Session co-chairs: Rebecca Robbins and Megan Inskeep

- 1:00** Fighting enteropathogenic *E coli* with algal polysaccharides
Marie Gallissot
Olmix
- 1:15** Validation of AndroVision® eFlow: A novel, reusable counting chamber for CASA concentration measurement of boar sperm
Rudolf Grossfeld
Minitube USA
- 1:30** The impact of dietary diformates in zinc oxide-reduced piglet diets: An overview
Christian Lückstädt
Apiam Solutions
- 1:45** Strain matters: Understanding how modes of action impact probiotic performance
Keith Kinsley
Chr Hansen
- 2:00** The design, development, commercialization, and licensure of real-time PCR tests for FMDV and ASFV
Johnny Callahan
Tetracore
- 2:15** Using competency-based educational technologies to develop carcass management competencies and prepare farm labor for potential depopulation catastrophes
Sarah Probst Miller
AgCreate Solutions
- 2:30** PigFlow workforce management platform
Matthew Rooda
SwineTech
- 2:45** REFRESHMENT BREAK
-

SUNDAY SESSION #4

Industrial Partners

- 3:15** PCV2 challenges and management plans within a US production system
Amy Maschhoff
Merck Animal Health
- 3:30** Porcine sapovirus: Field experiences with a potentially emerging pathogen
Brad Thacker
Merck Animal Health
- 3:45** Experiences with two commercial ileitis vaccines during the grow-finish period for same-sourced pigs
Daniel Boykin
Merck Animal Health
- 4:00** Next generation sequencing analysis on flies shows potential to introduce influenza A virus into a finisher
Gene Spellman
Central Life Sciences
- 4:15** ATP biosecurity verification
David Pyburn
BioChek
- 4:30** PRRS: An outsider's viewpoint
Jeff Odle
LANXESS Corporation
- 4:45** Trace mineral programs for performance optimization when pharmacological zinc is no longer an option
Bradley Lawrence
NOVUS International
- 5:00** Development of an updated porcine reproductive and respiratory syndrome virus product
Mazen Ismail
Thermo Fisher Scientific Animal Health
- 5:15** Proprietary monoglyceride blend prevents PEDV transmission from feed to piglets
Farrah Phillips
Kemin Animal Nutrition & Health
- 5:30** Session concludes

SUNDAY - MONDAY

Veterinary Student Posters

Veterinary Student Posters (#1 - #21)

Sponsored by ZOETIS

Zoetis and AASV provide a \$250 award to each student poster presenter.

Location: JW Grand Ballroom Foyer

Sunday, February 27 12:00 – 5:00 PM

Monday, February 28 8:00 AM – 5:00 PM

Authors present
Sunday
12:00 – 1:00

STUDENT POSTER COMPETITION: Posters #1-15 (*) have been selected for judging in the Student Poster Competition, sponsored by **UNITED ANIMAL HEALTH**.

-
- *1. Use of historical PRRS outbreak information to identify high and low risk areas in a region
Kathryn Lenker, University of Pennsylvania
 - *2. Field evaluation of vaccine timing regimen and genetic identity of pre-farrow SEQUIVITY® rotavirus vaccine on suckling pig performance using a challenge model
McKenna Brinning, Iowa State University
 - *3. Use of digital thermography to identify scrotal and inguinal hernias in piglets at processing
Adam Tatnall, University of Illinois
 - *4. Non-catalytic converter gasoline engine exhaust euthanasia
Evan Schwarz, University of Illinois
 - *5. Evaluation of nursery mortality and production performance using controlled and natural *Glaesserella parasuis* exposure
Katie Parker, Iowa State University
 - *6. Evaluating castration techniques and effects of scrotal hernia prevalence
Rachel Kanefsky, Tufts University
 - *7. An investigative analysis of a biosecurity program identifying critical control points and improving the efficiency and efficacy of measuring compliance
Isaac Goldner, University of Illinois
 - *8. Development of national resources for the practical implementation of swine depopulation
Kamryn Gitchell, University of Tennessee
 - *9. The effect of zinc and copper supplementation during late gestation on subsequent farrowing house performance of commercial sows
Justin Moeller, The Ohio State University
-

SUNDAY - MONDAY

Veterinary Student Posters

- *10.** Evaluating water quality and water availability parameters within a pork production system
Kaylee Robinson, University of Missouri
- *11.** Differentiation of H3N2 and H1N2 IAV-S antigenic sites by RT-qPCR
Courtney Wangler, University of Illinois
- *12.** Nitrogen gas delivered by highly expanded foam for the depopulation of swine
Lindsay Miller, University of Minnesota
- *13.** Evaluating the ability of disinfectants to control coccidia in farrowing crates
Austin Janssen, Iowa State University
- *14.** Caretaker movements impact on the spread of porcine coronaviruses and porcine reproductive and respiratory syndrome virus in growing pigs
Alexis Berte, Iowa State University
- *15.** Comparison of nebulization protocols for gilt exposure to *Mycoplasma hyopneumoniae*
Sydney Simmons, North Carolina State University
- 16.** Identifying pathways of entry of African swine fever virus into sow farms and potential improvement in biosecurity to prevent viral entry
Random Bolda, Kansas State University
- 17.** Development of antigen-based diagnostic ELISA for *Mycoplasma hyopneumoniae*
Rachel Bradley, University of Minnesota
- 18.** Evaluation of enteric disease on hemoglobin concentrations, complete blood cell counts and growth in piglets
Claire Bublitz, North Carolina State University
- 19.** Use antibiotic treatments to validate *Mycoplasma hyorhinis* and *Mycoplasma hyosynoviae* titers
Lucas Buehler, The Ohio State University
- 20.** Comparing the diagnostic sensitivity of various samples for the detection of *Mycoplasma hyopneumoniae* in recently exposed nursery-aged piglets
Megan Kellen, Iowa State University
- 21.** Identification and characterization of postweaning *Escherichia coli* and *Salmonella* spp in a large production system
Hannah Lathom, North Carolina State University

SUNDAY - MONDAY

Research Topics Posters

Research Topics Posters (#22 - #55)

Location: JW Grand Ballroom Foyer

Sunday, February 27 12:00 – 5:00 PM

Monday, February 28 8:00 AM – 5:00 PM

Authors present
Sunday
12:00 – 1:00

-
22. Investigation of vesicular lesions in pigs with unknown causative agents
Ethan Aljets
 23. Longitudinal evaluation of *Mycoplasma hyopneumoniae* detection in processing fluids
Albert Canturri
 24. In vivo tracheal fluid collection for *Mycoplasma hyopneumoniae* gilt exposure
Fabian Chamba Pardo
 25. *Mycoplasma hyopneumoniae* aerosol challenge evaluation in finishing pigs
Fabian Chamba Pardo
 26. Detection and investigation of atypical porcine pestivirus within a farrow-to-finish farm and off-site nursery and finisher locations
C. Grace Elijah
 27. Evaluating the impact of organic matter and sample processing technique on RNA detection using environmental samples
C. Grace Elijah
 28. Evaluation of the diagnostic performance of a porcine deltacoronavirus indirect ELISA and dynamic of the antibody response in growing pigs
Luis Gimenez-Lirola
 29. Colostrum fostering: Under practical conditions, is it useful to analyze colostrum with a Brix refractometer in the fostering protocols of hyperproliferative swine genetics?
Laszlo Gombos
 30. Timing of euthanasia: Is it an economic or animal welfare issue?
Laszlo Gombos

SUNDAY - MONDAY

Research Topics Posters

31. Distribution and characterization of *Streptococcus suis* strains of clinical importance within the US swine herd
Jessica Goncalves dos Santos
32. Diagnostic monitoring using oral fluids and sound: Complementing detection technologies
Christa Goodell
33. Pathogen monitoring for early disease detection using oral fluid and air samples
Christa Goodell
34. Inoculation of weaned pigs by feed, water, and airborne transmission of *Salmonella enterica* serotype 4,[5],12:i:-
Olivia Harrison
35. Evaluation of one versus two doses of an inactivated Seneca Valley virus vaccine in weaned pigs
Kyle Hoffman
36. Measuring the effectiveness of mitigants against PRRSV 1-4-4 in a simulation of an emergency feed outage
Megan Hood
37. Occurrence of wild type and vaccine-like porcine reproductive and respiratory syndrome virus 2 (PRRSV-2) strains in the United States
Mariana Kikuti
38. Shedding patterns and virus diversification of primary and secondary influenza infections in pigs infected with two distinct subtypes
Chong Li
39. Evaluation of internal biosecurity practices combined with sow vaccination to wean influenza-negative piglets
Gustavo Lopez Moreno
40. Characterizing boar stud practices in the United States to assess African swine fever infection and transmission pathways
Miranda Medrano
41. *Mycoplasma hyorhinis* in finisher pigs with neurological signs
Maria Merodio

SUNDAY - MONDAY

Research Topics Posters

42. Retrospective analysis of *Mycoplasma hyorhinis* pulmonary and systemic infection in diagnostic cases with correlation of qPCR Ct values and detection by RNAscope®
Maria Merodio
43. Detection of influenza A virus in US swine populations during 2010-2021: Implications for epidemiological investigations and control programs
Daniel Moraes
44. Factors associated with sort loss in pork production
Daniel Moraes
45. Use of an endogenous reference control in a PRRSV RT-qPCR
Berenice Munguia-Ramirez
46. Changes in productivity parameters as breeding herds targeting stability changed PRRSV status over time
Onyekachukwu Osemeke
47. Detection and correlation of PCV2 by PCR and IHC in tissues in a PCV2d/PRRSV challenge model in the new paradigm of PCV2d infection
Pablo Pineyro
48. Cough associated with *Mycoplasma hyopneumoniae* DNA detection in deep tracheal swabs and pen-based oral fluids
Ana Paula Poeta Silva
49. Proving competency-based learning educational strategies to create measurable carcass management competencies in farm labor
Sarah Probst Miller
50. Investigating differences in the source of *Serratia* and other bacteria in boar semen
Darwin Reicks
51. Oral delivery of a maize-produced PEDV vaccine candidate to sow/gilts provides protection to nursing pigs
Rick Sibbel
52. False positive or early detection? Standard process control charting improves ELISA *Mycoplasma hyopneumoniae* interpretation
Edgar Tapia

SUNDAY - MONDAY

Research Topics Posters

53. Improved piglet performance and reduced mortality and antimicrobial use following oral vaccination with a live nonpathogenic *Escherichia coli* f4/f18 vaccine against postweaning diarrhea
Frederic Vangroenweghe
54. Evaluation of air filters in swine farms as a surveillance method to assess the spread of porcine reproductive and respiratory syndrome and influenza A viruses
Lan Wang
55. Development and validation of a swine enteric coronavirus multiplex reverse transcription real-time PCR and investigation of virus detection frequency in US swine
Jinhui Zhu



SUNDAY - MONDAY

Industrial Partners Posters

Industrial Partners Posters (#56 - #74)

Location: JW Grand Ballroom Foyer

Sunday, February 27 12:00 – 5:00 PM

Monday, February 28 8:00 AM – 5:00 PM

Authors present
Sunday
12:00 – 1:00

-
56. Comparison of benzoic acid and potassium diformate on the performance of post-weaning piglets: A review
Christian Lueckstaedt
Apiam Solutions
57. Oral vaccination against *Lawsonia intracellularis* improves feed efficiency in experimentally challenged pigs
Emma Helm
Boehringer Ingelheim Animal Health USA
58. Evaluation of a *Streptococcus suis* strain that confers cross protection to serotype 1 and ½
Emily Collin
Cambridge Technologies
59. Bacteriological cultures show flies and gnats harbor live *Salmonella* in nursery exhibiting enteric disease
Allison Knox
Central Life Sciences
60. An update of *Mycoplasma hyopneumoniae* prevalence at weaning age in Spain
Lorena Perez Esteruelas
Elanco Animal Health
61. **Poster withdrawn**
Use of Furst Protect to improve health and performance of wean piglets
Fredrik Sandberg
Furst McNess Company
62. Monitoring PRRSV infection in vaccinated pigs
Alvaro Hidalgo
IDEXX
63. Evaluate the impact of beta-1,3 glucans (Aleta™) on immune response and production/health indicators in development gilts post-vaccination during the isolation period
Clayton Johnson
Kemin Animal Nutrition & Health
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SUNDAY - MONDAY

Industrial Partners Posters

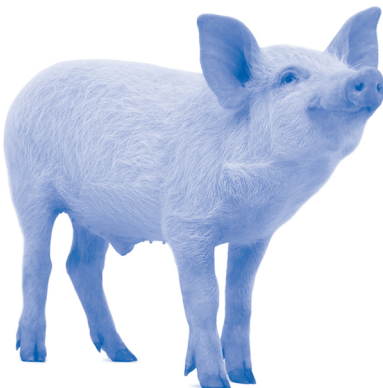
64. Retrospective study of interval between semen collections in boar stud in the south of Brazil
Jorgea Pradiee
MB Swine Reproduction
65. Bioinformatics as a tool in prescription platform vaccine development
Ashley Petersen
Medgene Labs
66. Stability of three commercial *Salmonella* vaccines in the presence of common drinking water additives
Robyn Fleck
Merck Animal Health
67. Two-year commercial demonstration of methionine hydroxy-analogue chelated zinc, copper, and manganese (MINTREX®) on sow reproductive and production performance in a highly prolific sow farm
Alexander Hintz
NOVUS International
68. Using sow technologies to drive sow and subsequent pig performance associated with inflammation
Ran Song
NutriQuest
69. Improving young piglets' immunity in nursery with an algae extract
Marie Gallissot
Olmix
70. The power of LeeO individual pig data in commercial production
Tyler Holck
Prairie Systems
71. Effect of Grazix, a phytobiotics-based product, on the lactate-producing and -utilizing gut bacterial populations of nursery pigs
Anlly Fresno-Rueda
Precision Health Technologies

Continued on next page

SUNDAY - MONDAY

Industrial Partners Posters

72. Investigation of pathogen and host genome variation influencing host reponse to *Streptococcus suis* infection
Jenelle Dunkelberger
Topigs Norsvin
73. DFM Pak[®], a novel combination of *Bacillus strains*, reduces environmental *E coli* bioburden, manure buildup, and odor compounds in the swine housing environment
Jake Lee
United Animal Health
74. Retrospective analysis of serological responses to a 2-dose PCV2 vaccination regimen initiated at 3 days or 3 weeks of age, and relationship to post-challenge viremia
Lucina Galina
Zoetis



MONDAY GENERAL SESSION

Defining Our Future

Defining Our Future

Date: Monday, February 28

Time: 8:00 AM – 12:15 PM

Location: JW Grand Ballroom 6-10

Session chair: Mike Senn

- 8:00** **Howard Dunne Memorial Lecture:** Leaping into the future: Sit down, buckle up, and hang on
Angela Baysinger
- 9:00** **Alex Hogg Memorial Lecture:**
Learning for the future
Jim Kober
- 10:00** REFRESHMENT BREAK – Co-sponsored by:
HOGSLAT and **CAMBRIDGE TECHNOLOGIES**
- 10:30** Diversity, equity, and inclusion in veterinary medicine
Fred Gingrich
- 11:10** Diversity, equity, and inclusion: Academia perspective
Alex Ramirez
- 11:30** Diversity, equity, and inclusion: Student perspective
Kelly Hewitt
- 11:45** Diversity, equity, and inclusion: Business perspective
Lisa Tokach
- 12:15** LUNCHEON – Sponsored by:
BOEHRINGER INGELHEIM

AASV LUNCHEON



Sponsored by:

BOEHRINGER INGELHEIM

Monday, February 28

12:15 – 2:00 PM

White River Ballroom

MONDAY SESSION #1

PRRSV RFLP 1-4-4

PRRSV RFLP 1-4-4: How are practitioners dealing with it and are the strains really different?

Date: Monday, February 28

Time: 2:00 – 5:30 PM

Location: JW Grand Ballroom 9-10

Session chair: Chris Sievers

- 2:00** Practitioner's perspective of PRRSV in sow herds: What's worked, what's failed and what we still have to learn
Paul Yeske
- 2:35** Mitigating the downstream effects of PRRSV and secondary infections
Dyneah Classen
- 3:05** Managing PRRSV testing and immunity for gilt development
Kate Dion
- 3:25** REFRESHMENT BREAK
- 3:55** Trading places: Valued learnings from both
Darin Madson
- 4:30** Understanding the emergence of a new PRRSV variant (L1C 1-4-4) through implementation of epidemiological tools
Cesar Corzo
- 5:00** Breaking down PRRSV next-generation sequencing into a user-friendly format
Giovani Trevisan
- 5:30** Session concludes

AASV AWARDS RECEPTION



Sponsored by:

MERCK ANIMAL HEALTH

Monday, February 28

6:30 – 8:30 PM

White River Ballroom

MONDAY SESSION #2

Sustainability & Animal Welfare

Sustainability and Animal Welfare

Date: Monday, February 28

Time: 2:00 – 5:30 PM

Location: JW Grand Ballroom 7-8

Session chair: Meghann Pierdon

-
- 2:00** Responding to animal disease outbreaks and natural disasters with a One Health approach
Gary Flory
- 2:25** Resiliency debrief for triage and care: A proposed plan of action
Elizabeth Strand
- 2:50** Best management practices for pen gestation: Opening Pandora's box
Tom Parsons
- 3:15** California Proposition 12: The slat-level experience
Hyatt Frobose
- 3:40** REFRESHMENT BREAK
- 4:10** The use of animal welfare as a tool to sustain public support for the use of animals in biomedical research: Lessons for the swine industry
James Marx
- 4:35** Statehouses and more: Proposals impacting animal agriculture
Elizabeth Rumley
- 5:00** Opportunities for technology to improve animal well-being
John Kolb
- 5:30** Session concludes

AASV FOUNDATION AUCTION

Monday, February 28
White River Ballroom



Silent Auction:
Use ClickBid to bid anytime, anywhere!

Live Auction:
Immediately following the AASV Awards Reception

MONDAY SESSION #3

Disease Control

Disease Prevention, Control, Elimination

Date: Monday, February 28

Time: 2:00 – 5:30 PM

Location: JW Grand Ballroom 6

Session chair: Marisa Rotolo

- 2:00** Utilizing vaccine to reduce the duration and impact of sow farm porcine epidemic diarrhea (PED) outbreaks
Brent Sexton
- 2:30** The next frontier in disease elimination: Tackling the endemics *Actinobacillus suis*, *Mycoplasma hyorhinis*, and *Mycoplasma hyosynoviae*
Maria Jose Clavijo
- 3:00** Rotavirus: Current experiences and thoughts with prevention and control
Jeremy Pittman
- 3:30** REFRESHMENT BREAK
- 4:00** Sow herd influenza A virus-swine (IAV-S) classification system
Cameron Schmitt
- 4:15** School of hard knocks: Disease prevention, control, and elimination
Paul Yeske
- 4:45** Dealing with dysentery: *Brachyspira hamptonii* within a production system
Elizabeth Noblett
- 5:00** A cheat sheet for *Mycoplasma hyopneumoniae* surveillance
Ana Paula Poeta Silva
- 5:30** Session concludes



TUESDAY GENERAL SESSION

Foreign Animal Disease

Foreign Animal Disease Preparedness and Response

Date: Tuesday, March 1

Time: 8:00 AM – 12:00 PM

Location: JW Grand Ballroom 6-10

Session co-chairs: Scott Dee and Mike Senn

- 8:00** State animal health officials (SAHOs) panel discussion: Animal disease preparedness and response
Jeff Kaisand, Bret Marsh, Beth Thompson
- 9:00** Global feed security response
Egan Brockhoff
- 9:30** US feed security response
Cassie Jones
- 10:00** REFRESHMENT BREAK
- 10:30** Swine Health Improvement Plan update
Rodger Main
- 11:00** Validation of extended storage protocols
Scott Dee
- 11:15** Responsible feed ingredient import program
Apoorva Shah
- 11:30** African swine fever: A practitioner's perspective
Joseph Yaros
- 12:00** Session and meeting conclude

AASV BUSINESS BREAKFAST



Tuesday, March 1

7:00 – 8:00 AM

White River Ballroom E

MEMBER SERVICES

AASV WELL-BEING CENTER

Learn about well-being and take advantage of resources and activities at the AASV Well-Being Center.

Take this opportunity to learn how to help a colleague, client, friend, and yourself!

Location:
JW Grand Foyer East



Mother's room

Need a quiet, private place to nurse or pump?



AASV has set aside a room for this purpose on the 3rd floor.

*Pick up the key at the AASV registration desk.
When registration is closed, see Dr. Abbey Canon.*

SATURDAY, FEBRUARY 26
Social Activities

STUDENT TRIVIA EVENT



Sponsored by:
MERCK ANIMAL HEALTH

Time: 6:00 – 8:00 PM

Location: OP Italian Restaurant
(off JW Marriott lobby)

Veterinary students, join us at 6:00 PM
Saturday evening for dinner and drinks followed
by a fun-filled, interactive evening of competitive
swine veterinary medicine trivia!

**Follow AASV on Facebook,
Twitter, and Instagram**

#AASV2022



@AASwineVets



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@AASVNews



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SUNDAY, FEBRUARY 27
Social Activities

AASV Yoga Class

Sponsored by
**DSM ANIMAL
NUTRITION & HEALTH**

Time: 6:00 – 7:00 AM

Location: White River #101-102

Coach: Ben Pratte

NEW! Join us for an hour of fun and interaction in this yoga class offering mind, body, and spirit workout based on YogaFit. Options will be provided for all levels from the beginner (first timer) to advanced yoga enthusiast. You will feel physically charged and mentally ready to go into sessions for the remainder of the day!



Ben Pratte has taught yoga since 2002 and is a certified YogaFit instructor as well as an instructor for a number of other group fitness programs & classes.

Mats will be provided – or bring your own.

Everyone is welcome, but please sign up by February 4 at www.eventbrite.com/e/yoga-class-at-aasv-tickets-214310517527.

SUNDAY, FEBRUARY 27
Social Activities

Praise Breakfast

Sponsored by
STUART PRODUCTS

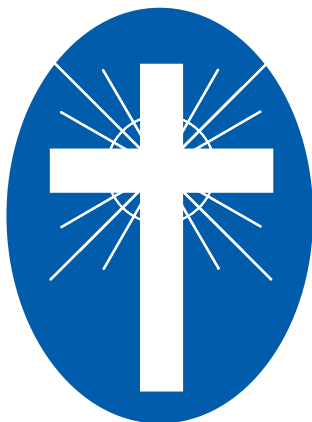
Time: 7:00 – 8:00 AM

Location: JW Grand Ballroom 7-8

Coordinators: Dave Baum, Sarah Probst
Miller, Monte Fuhrman, Tyler Holck,
Rexanne Struve

**Join your AASV friends
for breakfast, music,
and fellowship at the
AASV Praise Breakfast
on Sunday morning!**

The opportunity to sing
praises to the Lord with
the AASV Praise Team
will be followed by a
devotional message
by Dr. John Waddell.



Your free-will offering, along with
support from Stuart Products, will defray
the cost of the breakfast.

**All AASV meeting attendees
and their family members
are welcome!**

SUNDAY, FEBRUARY 27
Social Activities

Student Reception

Sponsored by
MERCK ANIMAL HEALTH

Time: 8:30 – 11:00 PM

Location: Griffin Hall

Everyone is invited!

Whether you are a veterinarian or veterinary student, you are invited to attend the Student Reception at the AASV Annual Meeting, courtesy of Merck Animal Health!



This evening of magical entertainment, desserts, and liquid refreshment provides the perfect opportunity for current and future swine veterinarians to interact and discuss employment and externship possibilities.

Students, turn in your “Vet Hunt” entries and stick around for the prize drawing!

TECHNICAL TABLES EXHIBIT



Monday, February 28

9:00 AM – 5:00 PM

Tuesday, March 1

8:00 AM – 12:00 PM

LOCATION: JW Grand Ballroom 1-5

All refreshment breaks on Monday and Tuesday take place in and around the exhibit tables.

Spend some time visiting with our exhibitors, learn about the products and services they offer, and be sure to thank them for supporting the AASV Annual Meeting!

MONDAY, FEBRUARY 28

Social Activities

AASV Luncheon

Sponsored by

**BOEHRINGER INGELHEIM
ANIMAL HEALTH**

Time: 12:15 – 2:00 PM

Location: White River Ballroom



Refuel after the morning's motivational presentations with a meal of delicious pork, courtesy of Boehringer Ingelheim. Your nametag is your luncheon ticket (*sorry, additional tickets are not available*). Stick around for the exciting announcement of the veterinary student oral and poster competition winners and student scholarship recipients!

AASV Awards Reception



Sponsored by

MERCK ANIMAL HEALTH

Time: 6:30 – 8:30 PM

Location: White River Ballroom

Come enjoy a casual atmosphere and an inviting food and beverage buffet, thanks to support from Merck Animal Health. Watch the AASV slide presentation while you dine. The highlight of the evening is the presentation of the prestigious AASV awards, followed by the exciting AASV Foundation Live Auction.

Tickets are provided to all meeting registrants in their nametag holder. Additional tickets are \$25.00 for adults; free for children under twelve. Bring your tickets - you'll need them to obtain beverages.

MONDAY, FEBRUARY 28
AASV Foundation Auction

Defining Our Future



The auction proceeds are a major source of support for the foundation programs described on the facing page.

SILENT AUCTION

Bid anytime from anywhere on your phone using ClickBid. Silent Auction items won't be displayed on-site: donors will ship items to the winning bidders after the auction.

Bid here:
aasvf.cbo.io

It will be "all-in, all-done" for the Silent Auction at 7:00 PM Eastern Standard Time.

LIVE AUCTION

Location: White River Ballroom

The Live Auction will be held at the conclusion of the AASV Awards Reception.



Don't miss it!

**Thank you for supporting
the AASV Foundation!**

aasv.org/foundation

AASV FOUNDATION PROGRAMS

Memorial Lectures

The foundation provides the speaker stipends for the annual Howard Dunne and Alex Hogg Memorial Lectures.

AASV Foundation Research Grants

Up to \$100,000 per year is awarded to fund research with direct application to the profession.

Hogg Scholarship

Named in honor of early AASP leader Dr. Alex Hogg, the \$10,000 Hogg Scholarship is awarded to a swine practitioner who has left practice to pursue a graduate degree in a field of study related to swine health and production.

Student Debt Relief

Three \$5000 awards are made annually to recent veterinary graduates who have been active in AASV and have significant student debt.

ACAW Scholarship

AASV members seeking board certification in the American College of Animal Welfare (ACAW) can apply for this expense reimbursement scholarship, with an incentive payment of \$10,000 for successful and timely achievement of certification.

Veterinary Student Scholarships

Numerous scholarships are available to veterinary students who participate in the AASV Student Seminar and Student Poster Competition and to students who demonstrate promise and interest in pursuing a career in swine medicine. The scholarships are supported by contributions from Elanco Animal Health, Merck Animal Health, United Animal Health, Zoetis, and the Dr. David Schoneweis Family.

Swine Externship Grants

Veterinary students who have completed a 2-week or longer externship in a swine practice or mixed-animal practice with a considerable swine component can receive up to \$500 of expense reimbursement.

Travel Stipends

In partnership with Newport Laboratories, the foundation provides a \$200 travel stipend to veterinary students who attend the AASV Annual Meeting.

And More!

TECHNICAL TABLES EXHIBITORS

Location: JW Grand Ballroom 1-5

Monday: 9:00 AM – 5:00 PM

Tuesday: 8:00 AM – 12:00 PM

EXHIBITORS

AAF Flanders
ABVP
ADM Animal Nutrition
AgCreate Solutions/Pork Avenue Training Portal
Allflex Livestock Intelligence
Alltech – Hubbard Feeds
Animal Health International
APC
Apiam Solutions
ARKO Laboratories
Arm & Hammer Animal and Food Production
Artemis AG-Solutions
Art's Way Scientific
Aurora Pharmaceutical
Automated Production
AVMA Trust
Bimeda
BioChek
BioSec
Bock Industries
Boehringer Ingelheim
Cambridge Technologies
Cargill Animal Nutrition and Health
Central Life Sciences
Ceva Animal Health
Chr Hansen
Christian Veterinary Mission
CID LINES
Clipper Distributing
DNA Genetics
DSM Animal Nutrition & Health
Elanco
Endovac Animal Health
Essential Ag Solutions
Fast Genetics
Furst-McNess Company
Genesis Genetics
GlobalVetLink
Hog Slat
Huvepharma

TECHNICAL TABLES EXHIBITORS

IDEXX
Innovative Heating Technologies
Insight Wealth Group
Kemin Animal Nutrition & Health
LANXESS Corporation
MAI Animal Health
Maximus Systems
MB Swine Reproduction
Medgene Labs
Merck Animal Health
Minitube USA
National Pork Board
National Pork Producers Council
Natural Biologics
Neogen
Newport Laboratories
Norbrook
NOVUS International
NutriQuest
Olmix
Pharmacosmos
Pharmgate Animal Health
Phibro Animal Health Corporation
PIC
PigCHAMP
PigKnows
PMI
Prairie Systems
Precision Health Technologies
Ralco
RTI
Stuart Products
Swine Health Information Center
SwineTech
TechMix
Tetracore
Thermo Fisher Scientific Animal Health
Tonistry
Topics Norsvin USA
United Animal Health
USDA APHIS Veterinary Services
Veterinary Pharmaceutical Solutions
Wilson's Prairie View Farm
Zinpro
Zoetis

Plan now to attend!

54th AASV Annual Meeting

March 4-7, 2023

**Gaylord Rockies Resort
and Convention Center**

Aurora, Colorado



Future AASV Meetings:

| | | |
|-------------|----------------------|------------------|
| 2024 | Nashville | Feb 24-27 |
| 2025 | San Francisco | March 1-4 |

**We extend our sincere appreciation
to the following sponsors of AASV
annual meeting activities:**

AURORA PHARMACEUTICAL

Refreshment Break Sponsor

BOEHRINGER INGELHEIM ANIMAL HEALTH

AASV Luncheon

CAMBRIDGE TECHNOLOGIES

Refreshment Break Co-sponsor

DSM ANIMAL NUTRITION & HEALTH

Yoga Class

ELANCO ANIMAL HEALTH

AASV Foundation Veterinary Student Scholarships

HOG SLAT

Refreshment Break Co-sponsor

HUVEPHARMA

Student Podcaster Award

MERCK ANIMAL HEALTH

AASV Awards Reception

AASV Foundation Veterinary Student Scholarships

Student Reception

Veterinary Student Trivia Event

NEWPORT LABORATORIES

Veterinary Student Travel Stipends

STUART PRODUCTS

Praise Breakfast

UNITED ANIMAL HEALTH

Veterinary Student Poster Awards

ZOETIS

AASV Student Seminar

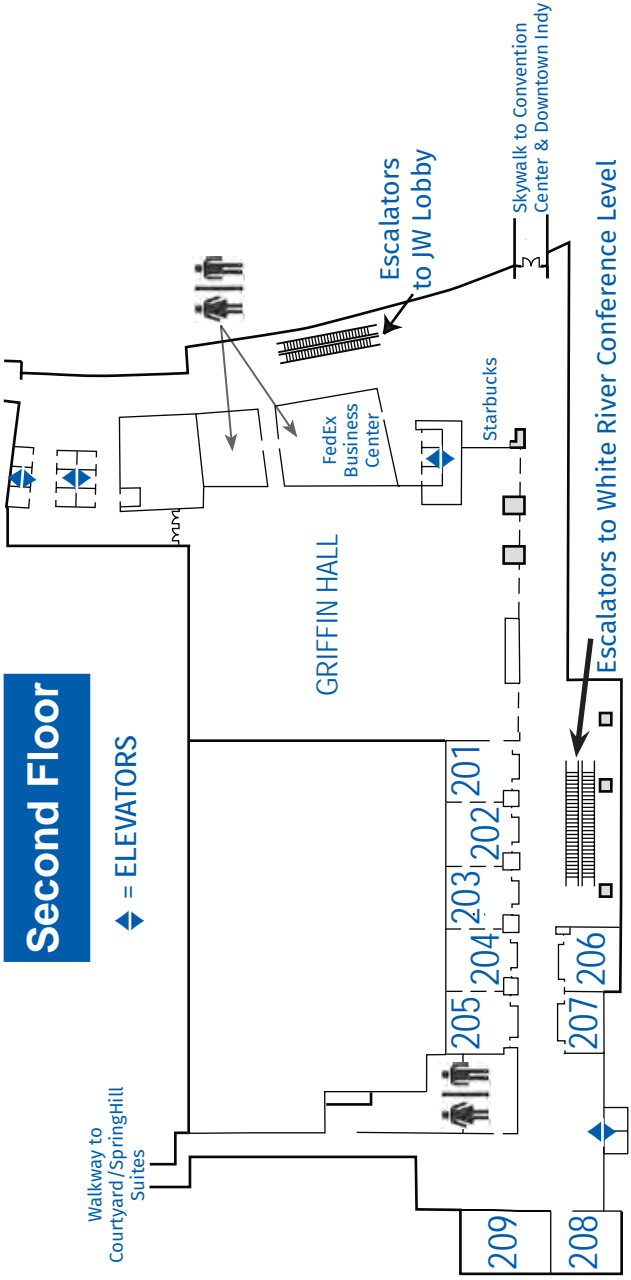
AASV Student Poster Session

AASV Foundation Veterinary Student Scholarship

Thank you!

JW MARRIOTT INDIANAPOLIS

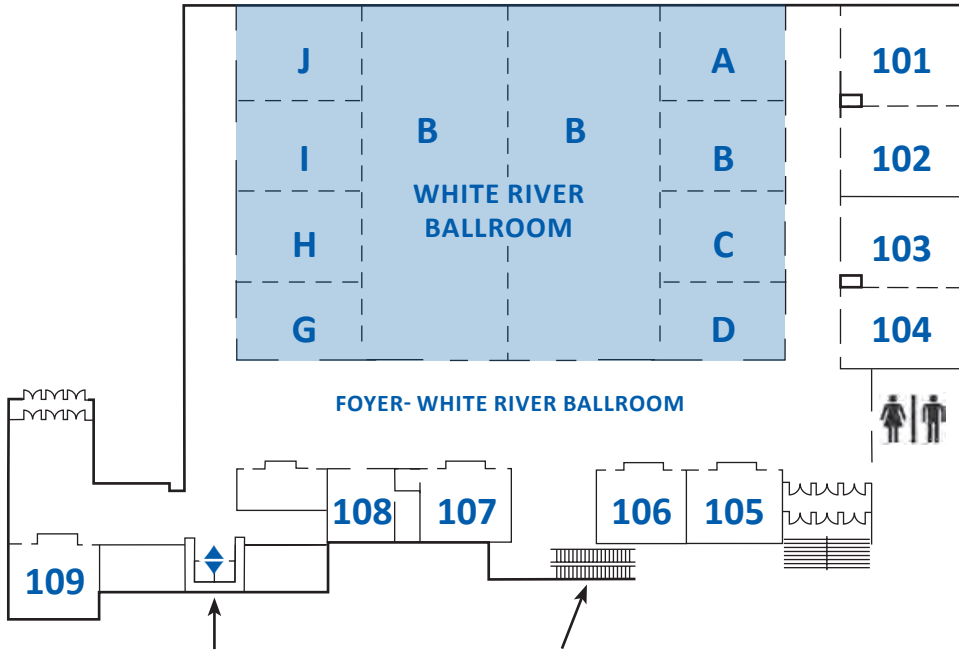
Second Floor



JW Marriott Indianapolis

First Floor

◆ = ELEVATORS



The White River Conference Level (1st floor) must be accessed from escalators/elevators on the second floor.

Third Floor

