

From the President of the Society for Theriogenology

For most of us the beauty of spring has been with us for at least a few weeks and has been a pleasant distraction from the drastic changes we have witnessed as a result of the Covid-19 pandemic. Spring also brings many reminders that life goes on and that we adapt to change. For my own family, we are nearly at the end of one of the most enjoyable calving seasons we have ever had. Despite all that is going on in the world, calves are going to be born and animals need to be fed. No one complained about not being able to get off of the farm and every teenager or young adult living under my roof pitched in. I would say that the 2020 calf crop will be the quietest, most handled group of calves that we have ever raised.

At the time of this writing we are still not sure that we will be able to hold our annual conference; at least not in the traditional sense. Thank you to all who completed our online survey sharing your thoughts regarding postponing versus cancelling the conference and letting us know how you feel about trying a web-based format. Your responses will help the board decide how best to proceed. Many organizations are cancelling or postponing their events and many universities have banned or advised against travel for their staff. We must first clarify issues surrounding our contract with the conference hotel in Pittsburgh and with that information we will be determining our next steps. Jack Smith and the rest of the 2020 conference team have done a wonderful job of putting together an excellent program. From the Board's strategic planning sessions held in Savannah, January 2019 we set a course to develop more web-based learning opportunities including capturing conference seminars. Before the pandemic our goal was to capture seminars at the 2020 conference. My mother always said "necessity is the mother of invention!" I don't think we will be able to claim to have invented anything related to webinars or the internet, but certainly our current situation might just be the catalyst that will help us launch something great for our organization. Charles, Tara and I have already had a web-based meeting with an organization that can help us produce an outstanding product; and Charles and Tara are exercising due diligence to ensure that the CE is R.A.C.E. approved. On May 20th our board will meet to decide what our next steps will be. You will know soon after.

I am proud of the Society for Theriogenology and the outstanding group of people on the Board and in the SFT office. I am honoured to be part of an organization that will ensure that a high quality conference is offered one way and/or another.

Sincerely,

Colin Palmer
SFT President 2019-2020



From the President of the American College of Theriogenologists

As I prepare this missive, I realize that it is not to inform, but instead to share uncertainty. An annual conference, with a schedule of wonderful topics to be delivered by an incredible cast of speakers, at a great venue; that may or may not occur. A certifying exam that may be administered to the candidates over the internet or a combination with some on-site. Additionally, some candidates may choose to wait until next year. Like the rest of the country or more correctly the world, we have to wait. Wait to see if the wave of illness and death subsides. Wait to see if things return to normal or at least normal enough to allow travel and some semblance of our previous routines.

All of this said, important work for the college is continuing. At our last board meeting the Maintenance of Certification and Training and Credentialing committees both provided reports. Board members continue to meet with respective subcommittees dealing with issues such as outreach and engagement, updates needed for the GIG, evaluation and tracking of theriogenology sub-competencies, and work to enhance the quality of the *Clinical Theriogenology* journal. With respect to our conference, our executive director, Dr. Charles Franz is continuing preparation for the meeting. The executive board discussed contingencies relating to the administration of the exam. Specifically, Dr. Brian Whitlock, the Chairperson for the Examination Committee reported on options with respect to provision of a means to offer this year's exam to those that choose to sit for it this year, but will be unable to travel to Pittsburgh. This alone will represent an enormous effort. Considerations include the timeline at which an exam is delivered and the identification of on-site exam proctors. By-words for us all during this time are obviously patience, flexibility, and perhaps optimism. We also, need to consider the challenges and problems of our organization in the context of what so many others are dealing with; remembering that many are facing the loss of loved ones, not to mention the economic hardships that many are and will face.

That pretty much summarizes what I can report, so I am going to change tact and share some of my thoughts on springtime and getting older. I'm what is termed an academic clinician. I am currently working at a veterinary college that is strangely missing all or at least most of its students. My wife used to repeat the oft-quoted statement that college towns would be the very best place to live – except for all the students. These words haunt me now, as it seems very sad without them. We are still seeing emergencies and in fact continuing a fair amount of farm work as it seems much of what theriogenologists consider routine is in fact crucial to the agricultural community. So, here at Auburn, we continue to ply our trade and do so with some great residents, technicians and a small group of student residents (4th years that were on salary for night technician duties providing a “loophole” that allows them to stay). I was called out late a couple weeks back and unable to go back to sleep, I penned the following. Perhaps it will provide a diversion from thoughts of this very strange time we are experiencing.

Its springtime and I feel older. To many I know that sounds odd, antithetical, and just plain backwards from our usual thoughts of this wonderful season filled with conception, newness, birth. So, I guess I'm a contrarian. Perhaps, not by nature, but instead from experience. After fifteen years of practice I joined the faculty at Mississippi State and I remember thinking of the old adage; “If you want to stay young, surround yourself with young people”. Well I have to tell you that for me, being around veterinary students made me feel old, in fact, ancient, and certainly “behind the times”. As time went on, I reached first the age of the average students' parents, and then of late the age of their grandparents fully realizing this when approached by a student to tell me that I had “taught her dad”. Well you get the point. I think for me the newness; the hustle and bustle of springtime seems to have that same effect; that of feeling my age.

And so this, my 42nd spring as a veterinarian and I move very slowly at 4:30 in the morning and I'm awful tired when suppertime rolls around. I don't have as much "night call" as I used to, but when I do roll out of the bed to answer the phone, it feels as though I am coming out of some kind of coma, perhaps the kind that resulted from a bad automobile accident in which a lot of your bones were crushed. It is usually best to make some coffee while I dress and wisest still to pre-medicate (your NSAID of choice). Even down south (Auburn, Alabama), it is cool late at night and that helps. The uncertainty that I felt decades ago as I would drive toward the clinic or a farm, has been replaced by the certainty that over the years, I have seen pretty much everything. I arrive and everything goes well. In fact, I am really just an observer as students and a resident handle the work.

Toward the end of that late night emergency, when after finally becoming completely awake, awake to the point that you realize that it will be hard to go back to sleep (when you finally can) and when you think about how tired you will be tomorrow (actually today). I stop for a moment and look for a minute at the product of our work. I am guessing that if you have read this far, an image comes to mind. Perhaps it is the tired cow, a heifer only moments ago, reaching down to lick the flank of a still wet calf. Maybe it is a mare softly nickering to a wobbly foal attempting to rise for the first time or that basket full of puppies. That is when I smile, a smile that emanates from my very being and I realize how very blessed that I am to have the wonderful life I've had and still be able to enjoy this wonderful profession.

Of course, I still feel very tired and very, very old.

All the best and please stay safe,

Sincerely,

Richard Hopper
ACT President 2019-2020



From the President of the Theriogenology Foundation

The global strategy for 2020 has become survival. In February, while China was already facing hundreds of fatalities from a coronavirus infection-associated pneumonia, eight of us were eagerly packing our bags to head to Detroit for the TF Strategic Planning meeting. One day before departure, a Midwestern snowstorm bore down on Michigan, grounding our group. Drs. Hopper and Floyd arranged a Plan B at Auburn, where a ZOOM meeting brought the great thinkers from Michigan, Alabama, Mississippi and Boston together through technology. Almost.

My lack of preparedness to work remotely became evident. As displayed in the photo, I was the keeper of all the easel-paper charts and talking points which had been neatly packaged in a FedEx tube for travel. Camera on my computer for ZOOM hookup? Not a chance. Audio through the PC? Nope. PowerPoint for the team? Negative. Nestled in the mecca of Boston high tech, I instead sent cellphone shots of the papers that I had scotch-taped around my home office, fought with the GE speaker phone button on my landline, and connected to our patiently waiting strategists. After lamenting how weather had forced us to shelter-in-place, we spent the next 7 hours glued to our chairs discussing the survival of the Theriogenology Foundation. Truly.

A few key events required us to change the course of the Theriogenology Foundation. Dr. Charles Franz gave notice of his resignation as TF Executive Director in December. In January at the Combined Board meeting, a proposal for ACT, SFT, and TF to equally share the funding of a new ED position was rejected. Since the TF alone could not financially sustain this position, the TF had to be restructured. Ultimately, the Strategic Planning Committee recommended a Foundation which will primarily fund and administer the core student support functions of travel, research, and education. All the great student opportunities such as the student chapter grants, externships and residencies are still in place. The Theriogenology Foundation will cease to administer the Working Dog Project, and has transferred ownership, assets, and control to the Darwin's Ark Foundation (www.darwinsark.org).

By March, it was a virus, not terrorism or the weather, that was grounding planes and halting businesses. Years ago, we defined the Theriogenology Foundation through our mission statement as **“a global resource that supports education and research in reproductive medicine; ensuring that future generations of animals continue to enrich our lives through service, companionship, and food for a growing human population while conserving our natural resources.”** I still believe that veterinarians are central to the immense challenges of animal productivity, food safety/security and sustainability. But for now, a smaller and more narrowly focused Foundation will hunker down to protect the ability of our students to learn and expand their knowledge and competency in theriogenology. Our proposed new mission statement is: **The Theriogenology Foundation supports education and research in animal reproductive medicine.** Period.

As for me, I either need to sign up at the local community college for computer education or finally retire to the rocking chair on the front porch. I'll let you know in July, either in person or via ZOOM. Stay well.

Anita Migday



Dr. David E. Bartlett Award for Lifetime Achievement in Theriogenology

Dr. Terry Blanchard



Dr. Terry Blanchard studied at K-State and received his Doctorate in Veterinary Medicine in 1976. He was in a mixed animal practice at Smith Animal Clinic, Inc., Crown, Point, Indiana, for a year after graduation. Dr. Blanchard joined the U.S. Peace Corps in the Philippines where he taught pre-veterinary students and performed research on reproduction in water buffaloes from 1977-1979. Dr. Blanchard wrote a thesis on the effects of anabolic steroids on stallion testicular function while working on his master's degree. He received his master's degree from the University of Missouri in 1983. He completed his residency in large animal reproduction at the University of Pennsylvania, New Bolton Center in 1981, and then joined the faculty at the University of Missouri-Columbia. He became certified as a Diplomate in the American College of Theriogenologists in 1982. He rejoined the faculty at the University of Pennsylvania from 1984-1986. Dr. Blanchard then joined the faculty at Texas A&M University from 1986-2005. He moved to Lexington, Kentucky, as a resident veterinarian at Hill 'n' Dale Farm from 2005-2007, and rejoined the faculty at Texas A&M

University in 2008. He has been a faculty advisor to approximately 40 resident/graduate students. Dr. Blanchard is the co-author and editor of two textbooks on stallion reproduction and one textbook on equine reproduction, 18 book chapters, and over 130 referenced journal publications.

Dr. Blanchard has served as secretary of the ACT Examining Committee and was recognized in 2006 as the ACT as the Theriogenologist of the Year. Dr. Blanchard is currently a member of American Veterinary Medical Association, American Association of Equine Practitioners, Texas Equine Veterinary Association, Kansas Veterinary Medical Association, Society for Theriogenology and American College of Theriogenologists.

Dr. Blanchard is married to Kathleen. He has four daughters: Shanna, Holly, Katie and Angela; and two sons: John and Michael.

2020 Proficiency Awards

The "Proficiency in Theriogenology Award", sponsored by the Society for Theriogenology, is a student award to be given annually to one senior at each veterinary school/college in the United States and Canada. Congratulations to all award recipients (as of 4/24/2020)!

Jenna Ward (Texas A&M University)

Morgan Rea (Virginia-Maryland College)

Samantha Nieves (University of California-Davis)

Chet McClure (University of Illinois)

Jessica Bottger (Oregon State University)

Sarah Stanley (University of Georgia)

Anum Ahmed (Kansas State University)

Brooke Unruh (Purdue University)

Rachel Wilson (Mississippi State University)

Ava Kent (Ross University)

Tiffany Mavromatis (Louisiana State University)

Sarah Randell (University of Florida)

Theriogenologist of the Year - Dr. Claire Card



Dr. Claire Card is a graduate of Cornell University where she earned 3 degrees (BSc, DVM, and PhD) and was a post - doctoral fellow. She is a full professor and clinician scientist at the WCVM, University of Saskatchewan. She is an equine theriogenologist at the Vet Med Centre and has an active research program. She instructs veterinary students in equine and companion animal reproduction, physiology and sustainable development. She educates veterinary students to be “woke” to the challenges of racism, inequality and climate change and the role the veterinary profession has in the solutions. She has held many leadership positions in veterinary medicine and is a past -president of the ACT, past board member of the Saskatchewan VMA, SFT and TF. She is currently a board member of and volunteers for Veterinarians without Borders (VWB) Canada and for the past 12 years has been working in a project in rural Uganda focussed on impoverished HIV AIDS effected women, to improve their livelihoods. She has a wonderful partner Peter Barnacle who has supported her in being an outlier, having no boundaries and in loving her large blended family of 6 children, 4 grandchildren and 3 Ugandans. In her spare time she is a 4th Dan black belt in Tae Kwon-do and enjoys running, reading, cooking, nature and travel.

Call for Nominations - 2021 Theriogenologist of the Year Award

Nomination due date - November 15, 2020.

The American College of Theriogenologists is seeking nominations for “Theriogenologist of the Year,” an award which recognizes a theriogenologist for recent, outstanding contribution(s) to the discipline of theriogenology.

The award is accompanied by a plaque and monetary honorarium of \$1,500.

2021 Nomination Form

Qualifications include:

- a. ACT Diplomate in good standing
- b. Has made recent, outstanding contribution(s) to the discipline of Theriogenology.
 1. In most cases the contribution(s) will have been made within the past 5 year period.
 2. Outstanding contribution(s) may take many forms and will be judged in part on furthering awareness and understanding of the discipline of Theriogenology and Theriogenologists, including mentorship and training.
 3. Note: The award is not intended to recognize career achievement.

2021 Bartlett Award Nominations Sought

Nominations are now being sought for the 2021 David E. Bartlett Award for Lifetime Achievement in Theriogenology, presented annually to a distinguished individual who has made important contributions to the field of theriogenology.

The award - intended to cement the efforts of the Society and College toward common goals in animal reproduction, to reward and inspire excellence, improve the visibility of theriogenology, and to annually recognize the efforts of the founders - particularly honors Dr. David E. Bartlett, first president of the College. Among his many accomplishments, Dr. Bartlett was responsible for deriving the terms “theriogenology” and “theriogenologists,” and was instrumental in gaining hard-won AVMA recognition for the American College of Theriogenologists in 1971.

The 2021 David E. Bartlett Award for Lifetime Achievement in Theriogenology will be presented during the annual Therio Conference in Omaha, Nebraska. The recipient will be notified in advance, allowing family and friends to be on hand. The honoree will address those in attendance and will have the option of submitting a contribution to the conference proceedings. The honoree will receive \$1,000 cash, an engraved statue of Nandi, and complimentary registration, hotel accommodations and transportation to the 2021 conference.

Please submit the accompanying Preliminary Entry Form and nominate an individual to add to the list of preeminent recipients. Entry forms must be received no later than January 4, 2021.

Nominations may also be made online at <http://www.therio.org/BartlettAwardForm>. You must be signed in as an SFT member to access the form. It is located under the Therio Conference page and also under the Bartlett Award recipient list on the SFT website.

2021 Dr. David E. Bartlett Award for Lifetime Achievement in Theriogenology

Preliminary Entry Form

Sponsored by the Theriogenology Foundation

In cooperation with the Society for Theriogenology & American College of Theriogenologists

Purpose: To reward a distinguished theriogenologist who has made important contributions to the field of theriogenology.

Nominee: _____

Full Address: _____

Current Employment and Position: _____

Home Phone: _____ Business Phone: _____

Fax: _____ Email: _____

Provide a short description of nominee’s qualifications for this award. Use a separate sheet of paper containing a maximum 350-word narrative bio, highlighting nominee’s key accomplishments.

Nominated by: _____

Full Address: _____

Home Phone: _____ Business Phone: _____

Fax: _____ Email: _____

Nominations MUST be received by January 4, 2021

Submit online at: <http://www.therio.org/BartlettAwardForm> or mail to: Theriogenology

Foundation, Bartlett Award

761 Tiger Oak Drive

Pike Road, AL 36064-3063

Therio Foundation 2020 Conference Fundraising Events

TF SILENT AUCTION 25.0

The passing along of boutique items from colleague-to-colleague through the silent auction has become a signature event of our annual conference. We are limiting the number of items to 25 again this year as it worked out well last year! Here are some suggestions for items:

- *Educational items (text books, etc.)
- *Arts and crafts
- *Liquor/wine
- *Sporting events
- *Veterinary equipment

Once you decide on what your priceless creation or generous gift will be, please e-mail the attached form along with pictures of the item(s) by June 15th, 2020 to: jgfloydjr@gmail.com.

Get your donation into the spotlight by submitting early.....the final item list will be posted on the website by July 1 so the membership has a month to start saving their dollars to bid!

After 25 items have been selected, we will respectfully ask you to hold your gift until 2021!

No on-site donations can be accepted this year.

Thank you for your continued support of the Theriogenology Foundation Silent Auction!!!

We look forward to seeing you in Pittsburgh!!



Awards Dinner and Story Night

This year's live auction will be held in conjunction with the first annual Veterinarian Story Night.

Purchase your ticket at: therio.org.

Sealed bids for live and silent auction items are accepted until July 23. Items will be posted online and updated as submitted. Please complete the sealed form on the TF website at: <http://www.theriofoundation.org/?page=sealedbidform>.

Craft Beer Tasting Fundraiser for the Theriogenology Foundation



During the Opening Session Reception Wednesday evening, July 22 or the Awards Dinner and Story Night Reception, July 24, attendees will have the chance to experience some locally brewed craft beer and help the Theriogenology Foundation at the same time. For \$40 you will receive four samples of beer. Once you have sampled and chosen your favorite, you will get a full serving of that beer. Proceeds will benefit the Theriogenology Foundation. Tickets may be used at the event of your choice.

Thank you!

A huge thank you to the following individuals for all their efforts in planning the 2020 conference!

Annual Conference Program Chair

Dr. Jack Smith

Equine Track Program Chair

Dr. Marco Coutinho da Silva

Production Animal Track Program Chair

Dr. Heath King

Small Animal Track Program Chair

Dr. Cheryl Lopate

Equine Symposium Chairs

Drs. Marco Coutinho da Silva and Pat McCue

Student Equine Wet Lab Chair

Dr. Marco Coutinho da Silva

Educators' Forum Chair

Dr. Hilari French

Silent Auction Chairs

Drs. Jim Floyd and Will Schultz

Live Auction Chair

Dr. Jim Floyd

CBEST Chair

Dr. Marty Greer

Thank you to our 2020 Sponsors!

(as of 4/24/20)

Platinum Plus Sponsor

IDEXX

Platinum Sponsors

Lane Manufacturing, Inc.

Merck Animal Health

Rood & Riddle Equine Hospital and Veterinary Pharmacy

Universal Imaging, Inc.

Gold Sponsors

Sonosite-A Fujifilm Company

Silver Sponsors

American College of Theriogenologists

Theriogenology Foundation

Bronze Sponsors

Michelson Prize & Grants

Thank you to our 2020 Exhibitors!

(as of 4/24/2020)

The American Kennel Club, Inc.
Breeder's Choice
Christian Veterinary Mission
E.I. Medical Imaging
Elsevier
Fertility Technology Resources
IDEXX
Jorgensen Laboratories
Juniper Systems
KARL STORZ Veterinary
Endoscopy America, Inc.

Lane Manufacturing, Inc.
Merck Animal Health
MILA International, Inc.
Multimin USA
Minitube USA
Professional Embryo Transfer
Supply, Inc.
Sonosite-A Fujifilm Company
Universal Imaging, Inc.
Puppywarmer



2020 Annual Conference Agenda

Wednesday, July 22

ACT Educators' Forum

Opening Session Abstracts

Opening Session Reception

Equine Symposium and ART Workshop (*additional registration required*)

Opening Session Abstracts

Identifying risk factors for mastitis in postpartum bitches

Jennine Lection

Fungal growth is more likely to be affected by hormones in equine uterine isolates compared with isolates from non-reproductive sites

Jennine Lection

A novel method to reduce egg-laying in companion avian species using the hen as a model

Sandra Ayres

Sperm-bound antisperm antibodies are associated with poor cryosurvival of stallion spermatozoa

Maria Ferrer

Effect of energy substrates on cool-stored stallion spermatozoa

Camilo Hernandez-Aviles

Effects of recent feeding on canine serum progesterone

William Whitley

The effect of slide type to evaluate motility parameters of frozen-thawed equine spermatozoa using CASA

Paul Loomis

Effect of different glycerol concentrations on a new extender for dog freezing semen

Rogerio Souza

Thursday, July 23

Bartlett Award and Address

Terry Blanchard

Theriogenologist of the Year Award and Address

Claire Card

Dr. Jerry Rains Memorial Abstract Competition

SFT Business Meeting

ACT Business Meeting

Student Case and Research Presentations

Student/Mentor Reception
Opening Reception in the Exhibit Hall
Student Quiz Bowl
Student Equine Wet Lab

Dr. Jerry Rains Memorial Abstract Competition

sponsored by Merck Animal Health

Sperm protein reactive with anti-sperm antibody (SPRASA) is immunoexpressed in equine primordial, primary, secondary, and tertiary follicles

Brynley Cozzi

A comparison of two methods to induce the acrosome reaction in stallion sperm

Camilo Hernandez-Aviles

Effects of uterine-sperm contact time on the degree of endometrial inflammation in mares bred by deep horn rectally guided artificial insemination

Sofia Kovacsy

Investigation of inflammatory proteins as novel diagnostic biomarkers for endometritis in the mare

Jennine Lection

Oxytocin-induced secretion of 13,14-dihydro-15-keto-prostaglandin F₂α (PGFM) in mares with prolonged corpus luteum (CL) function

Brendan Sarnecky

Pharmacodynamics of clomiphene citrate in cyclic mares

Cory Anderson

The effect of mycobacterium cell wall fraction on histological, immunological, and clinical parameters of equine postpartum involution

Carleigh Fedorka

Transcriptomic analysis of equine chorioallantois reveals key regulators and pathways involved in ascending placentitis

Hossam El-Sheikh Ali

Student Case and Research Presentations

Monozygotic twins in a Thoroughbred mare bred by live-cover

Katelyn Kimble

Pregnancy toxemia in the bitch

Kalie Beckers

Dystocia due to a congenital hydrocephalus in a miniature Dachshund

Colleen Kutzler

Mummification of fetus and abortion secondary to umbilical cord torsion

Rachel Doenges

Left testicular rupture in a Red Angus bull

Sara Dietz

Successful treatment of ascending placentitis in a Thoroughbred mare

Hannah Neer

Alfaxalone cross-reactivity affecting progesterone concentrations in cats

Joshua Trumble

Influence of extender, temperature, and equilibration time on post-thaw sperm motility in ram semen (*Ovis aries*)

Peri Pelletier

Sonographic appearance of the late gestation sheep fetal intestine and kidney

Elizabeth Frieden

Assessing the efficacy of deslorelin acetate in advancing ovulation for use in timed artificial insemination protocols in goats

Sarah Legg

Friday, July 24

Scientific Abstract Presentations

Awards Dinner Reception

Awards Dinner, Story Night, and Live Auction

Plenary Session

The future is coming! - New technologies being applied to reproduction in animals and man

Katrin Hinrichs

In search of stem cell efficacy – immunogenicity matters

Ashlee Watts

Mixed Species Abstracts

Comparison of glucose and lactate concentrations between healthy equine and mule foals and of an automated laboratory analyzer and the Accutrend® Plus system

Yatta Boakari

Effect of ejaculation frequency, Prostaglandin F-2 α , and cold storage on canine semen yield and post-thaw quality

Kendra Zelachowski

The seroprevalence of brucellosis in hog hunting dogs, imported dogs, and dogs presenting for routine spay and neuter in the Southeastern United States

Alyssa Helms

Effect of injection of Synamid® (polyacrylamide hydrogel) into the reproductive tract of mares

Stephanie Walbornn

Uterine expression of leptin, RhoA and Rho-associated kinases in bitches with primary uterine inertia and with obstructive dystocia

Orsolya Balogh

Evaluating the efficacy of a silicone Y-design intrauterine device as a horse contraceptive in a captive breeding trial

Cory Anderson

Description of submissions diagnosed serologically positive for canine brucellosis at the Cornell Animal Health Diagnostic Center (2014-2019)

Soon Hon Cheong

The association of intravaginal progesterone-releasing device and estradiol-17 β is equivalent to the combination of estradiol-17 β and long-acting progesterone to synchronize acyclic embryo surrogate mares
Lorenzo Segabinazzi

Production Animal Abstracts

Effect of age on follicle stimulating hormone receptor expression in ovine endometrium
Hayder Habeeb

Acupuncture reduces milk N-acetyl beta-D-glucosaminidase in dairy cows with mastitis
Elise Ryan

Dominant follicle removal prior to superovulation
Taylor Mittleider

The effects of zinc on the maturation and fertilization of bovine oocytes
Brianna Price

Bovine sperm morphology analysis varies greatly by reader
Ashley Reeves

Effects of motility activation and cryopreservation on the glycocalyx of fish sperm
Bryan Blawut

Platelet-rich plasma reduces endometrial macrophages in postpartum beef heifers
Michelle Kutzler

Ultra-fast cooling reduced oxidative stress in vitrified bovine oocytes
Soon Hon Cheong

Equine Abstracts

Cooled-transported epididymides for donkey semen cryopreservation
Yamilka Lago-Alvarez

Intrauterine infusion of platelet-rich or -poor plasma to modulate persistent breeding-induced endometritis (PBIE) in embryo donor mares
Lorenzo Segabinazzi

Effect of pyruvate on the rate of lactate-induced spontaneous acrosome reaction of stallion sperm
Luisa Ramirez-Agamez

Streptococcus equi subspecies *zooepidemicus* endometritis in mares: culture, cytology and antimicrobial susceptibility tests
Christina Divine

Comparison of pregnancy rates in mares inseminated with frozen semen pre- plus post-ovulation versus post-ovulation only in a commercial breeding program
Christian Bisiau

Use of serum amyloid A and other inflammatory markers to monitor the inflammatory response in mares with periparturient complications
Mette Christoffersen

Clinical effects of pre-breeding intrauterine PRP in the mare
Lauren Pasch

Expression of prostaglandin E2 and oxytocin receptors in the stallion accessory sex glands

Robyn Ellerbrock

Case Reports

Fungal endometritis in a mare diagnosed during the mid-embryo period of gestation

Allan Gunn

Pyometra associated with hyperammonemia in a mare

Daniela Orellana

Gestational ultrasound diagnosis of omphalocele in a Toggenburg goat fetus

Bret McNabb

Presence of *Tritrichomonas foetus* in the urethra of a chronically infected bull

Jessica Rush

Hypertestosteronism in an intact female alpaca secondary to an interstitial cell tumor

Katelyn Waters

Suspected spermatic cord torsion with fertility testing and post-surgical findings in a dog

Audrey Kelleman

Repair of a full thickness uterine tear via iatrogenic uterine prolapse in an anesthetized Thoroughbred broodmare

Justin McNaughten

Therapy and evaluation of early embryonic loss in a subfertile bitch

Hannah Smith

Abstract Poster Presentations

Generation of hormone-responsive organoids from fresh and cryopreserved equine endometrium: A comparison between domestic and endangered Przewalski's mares

Riley Thompson

Semen parameters and fertility of cooled stallion semen extended with sodium caseinate and phosphocaseinate based extenders

Giorgia Podico

Sperm parameters after cushion centrifugation of stallion cooled-stored semen

Claire Kaplan

Evaluating the impact of a systemic treatment protocol on uterine biopsy grade and uterine microbiome in mares with pre-treatment Kenney grades of IIB-III

Adam Bassett

Effect of platelet rich plasma lysate (PRPL) and fibroblast growth factor 2 (FGF2) on sperm motility in stallions

Fabio Pinaffi

Prevalence of and potential impact on fertility of pars pituitary intermedia dysfunction in a Thoroughbred broodmare population in England

Sarah Moore

Breeding characteristics of stallions standing at a commercial Thoroughbred stud in Central Kentucky

Charles Scoggin

Kisspeptin (Kp) and RFamide-related peptide 3 (RFRP-3) neurons in the hypothalamus of adult and juvenile dairy cattle; expression of oestrogen receptor alpha (ER α), and inputs to gonadotrophin releasing hormone (GnRH) neurons

Allan Gunn

Oviductal insemination by hysteroscopic hydrotubation in mares: A preliminary investigation

Yuji Inoue

Effect of oxytocin administration during mid diestrus on early pregnancy in the Thoroughbred mare

Justin McNaughten

Using a combination of estradiol cypionate (ECP) and altrenogest to control the timing of ovulation in mares

William Whittler

Prevalence of malignancy in canine mammary masses in a population of shelter dogs

Sharon Pindar

Use of intravaginal progesterone releasing device (PRID™ Delta) to hasten first ovulation in mares: Side effects and pregnancy rates on one commercial thoroughbred farm

David Trundell

Individual variation of frozen-thawed sperm from stallions to survive dilution and cooling after thawing

Kristin Klohonatz

Comparison of pregnancy rates using a new versus a once-used CIDR in a 7-day estrus synchronization protocol during the breeding season in ewes

Dinesh Dadarwal

Retrospective review of uterine prolapse in mares

Ghislaine Dujovne

Small Animal Track

Introduction to stem cells – what they are, how to grow them, how to make them do what we want them to

Diane Carlisle

Stem cells and female infertility

Jonathan Tilly

Using pluripotent stem cells to treat male factor infertility

Charles Easley

Production Animal Track

Postpartum anestrus of beef cows: importance and evaluation

Bob Larson

Using the pregnancy analytics app to add value to pregnancy diagnosis of beef herds

Bob Larson

Bull reproductive development and sperm production enhancement

Ahmed Tibary

Equine Track

Michelle LeBlanc Memorial Equine Lectures

Embryo-maternal communication during the establishment of equine pregnancy; The role of mare age in early pregnancy loss

Tom Stout

Reproductive endocrinology and immunology of the pregnant mare

Barry Ball

Saturday, July 25

So you want to become a Diplomat?

Career Paths in Theriogenology

Student Case Poster Presentations

Small Animal Track

Current state of embryo transfer in dogs

Karine Reynaud

Current state of IVM/IVF in dogs

Karine Reynaud

“This stud's a dud!”- Canine semen evaluation protocols and pitfalls

Joann Randall

“Boys in a box”-Chilled and frozen canine semen shipments

Joann Randall

Evaluation of canine nomograph as a tool to improve puppy immunization outcomes

Laurie Larson

Pedigree analysis and genetic counseling

Cynthia O'Connor

Genetic testing and inbreeding coefficients

Cynthia O'Connor

Production Animal Track

Fetal programming: maternal-fetal interactions

Caleb Lemley

Fetal programming: postnatal performance

Caleb Lemley

Physiology and reproductive techniques for the whitetail doe

Jason Coe

Advanced reproduction and semen collection in whitetail deer

Jason Coe

Urogenital surgery in camelids

Ahmed Tibary

Postpartum factors influencing fertility

James Ferguson

Dairy reproductive management programs

James Ferguson

Equine Track

Genomics and transcriptomics of the normal and abnormal equine placenta: A better understanding of late gestational function and dysfunction

Barry Ball

Cervix and myometrium: Role in preterm and normal term birth in the mare

Barry Ball

Managing recipient mares to optimize pregnancy rates in an equine ART program

Tom Stout

Factors that threaten late pregnancy: How can we detect them?

Margo Macpherson

What do we know about medication in equine pregnancy?

Margo Macpherson

Management of dystocia

Pat McCue

Clinical Cases Discussion

Margo Macpherson, Pat McCue, Tom Stout

Student Case and Research Poster Presentations

Anasarca in a neonatal bulldog puppy secondary to a ventricular septal defect

Claudia Acevedo

Halter stallion anejaculation due to dorsal displacement of the soft palate

Breanthony Baker

Priapism in a Quarter Horse gelding

Hannah Carter

Evaluating changes in milk pH, milk protein, and udder development in the late pregnant ewe and effects on lamb serum total protein concentrations

Mary Clapham

Canine herpes virus in a breeding kennel of Wirehaired Dachshund

Jordan Farrell

A retrospective analysis on determinants of litter size in a colony of working dogs

Jordan Farrell

Foal born using intracytoplasmic sperm injection to a Friesian mare with unexplained subfertility

Alexandra Grillos

Granulosa cell tumor and prolonged estrus in a Boxer bitch

Christina Havrila

Detection of *Tritrichomonas foetus* in a beef herd

Cecilia Hernandez

Genetic causes of Golden Retriever congenital hypomyelinating polyneuropathy

Blair Hooser

Delayed uterine prolapse in a Thoroughbred mare with retained fetal membranes

Joanna Kania

The importance of breeding management in abnormal estrous cycles: A case study

Tokaj Kozak

Sertoli cell tumor in an alpaca

Samantha McCarter

Scrotal hydrocele in an Angus bull

Maryanna McClure

Bilateral ovarian adenocarcinoma in a geriatric Shih Tzu

Miranda Senft

Bilateral cystadenoma with a granulosa cell tumor in a Bernese Mountain Dog

Miranda Senft

A third degree rectovaginal

Joshua Trumble

Cervical adenoma and excisional biopsy in a spayed Labrador Retriever bitch

Julia Zuercher

Please note that schedule is subject to change. (Titles may appear different in the conference issue of Clinical Theriogenology.)

Student Equine Wet Lab

Thursday, July 23, 2020

sponsored by Sonosite-A Fujifilm Company

The goal of this one-day course is to provide veterinary students with an opportunity to learn about common procedures performed in equine clinical practice. Laboratory sessions will provide hands-on opportunities for semen collection, semen evaluation and processing, palpation and ultrasonography of the mare reproductive tract, and collection and interpretation of common uterine diagnostics.

Semen Collection and Evaluation

Palpation and Ultrasound

Uterine Culture, Cytology, and Artificial Insemination

Evaluation of Uterine Cytology and Biopsy

Special Events

Equine Symposium & ART Workshop
sponsored by Universal Imaging, Inc.

ACT Educators' Forum
sponsored by Theriogenology Foundation

Opening Session Abstracts

Student Equine Wet Lab
sponsored by Sonosite-A Fujifilm Company

Dr. David E. Bartlett Award for Lifetime
Achievement in Theriogenology

Theriogenologist of the Year Award
sponsored by Universal Imaging, Inc.

Dr. Jerry Rains Memorial Abstract Competition
sponsored by Merck Animal Health

SFT Business Meeting

ACT Business Meeting

Student Case Presentations

Exhibit Hall Opening Reception

Theriogenology Foundation Craft Beer Tasting

Student Quiz Bowl
sponsored by Merck Animal Health

Student T-shirt Contest

SCOTY Award

Plenary speakers Drs. Katrin Hinrichs and Ashlee
Watts

*sponsored by American College
of Theriogenologists*

Canine Breeder Excellence Seminar Track

Theriogenology Foundation Silent Auction

Annual Awards Dinner Reception

Annual Awards Dinner
sponsored by Merck Animal Health

Dr. John Steiner Award for Practitioner Excellence

Theriogenology Foundation Veterinarian Story
Night and Live Auction

Equine Symposium and ART Workshop

Wednesday, July 22, 2020
sponsored by Universal Imaging, Inc.

The workshop will include didactic sessions in the morning and a wet-lab in the afternoon. Didactic sessions will provide participants with the most relevant and practical information on equine in-vitro embryo production. Experts will discuss factors that affect oocyte yield, quality and developmental potential during collection, transport and preservation.

In the laboratory participants will have hands-on opportunities in all the steps involved in oocyte collection, evaluation and transport. Participants will practice transvaginal follicular aspirations in live mares, evaluation and handling of oocytes and packaging of oocytes for shipment. Participants must be familiar with equine ovarian palpation to participate.

Collection and transport of equine oocytes for in vitro embryo production

Tom Stout

OPU and oocyte transport: clinical considerations

Rob Foss

Diet and other influencers of oocyte developmental potential

Elaine Carnevale

Embryo and oocyte preservation

Katrin Hinrichs

ART Workshop

Oocyte Aspiration

Oocyte Evaluation and Transport

Additional registration required.

2020 Board of Directors Candidates



Dr. Kristina Baltutis

Dr. Kristina Baltutis is a small animal practitioner in central North Carolina. She has served on the SFT Board of Directors since 2017, when she graduated from North Carolina State University's College of Veterinary Medicine.

During this time, Dr. Baltutis has worked diligently on expanding and coordinating student initiatives including SFT's presence at the annual SAVMA Symposium, leading discussion sessions for SFT students and faculty at the SFT Conference, coordinating the annual Student-Mentor discussion at the SFT Conference, and starting a quarterly newsletter for SFT students. Recognizing that our students are our future, she is passionate about enabling opportunities for our students so they may fulfill their goals as members of the Society for Theriogenology.

Dr. Baltutis has worked in general practice, emergency practice, and as a relief vet. She owns a small animal mobile practice with an emphasis on canine theriogenology. Outside of veterinary medicine, Dr. Baltutis enjoys spending time with her border collie, golden retrievers, cats, chinchilla, and spouse.



Dr. G. Reed Holyoak

G. Reed Holyoak is a professor, holds the Bullock Equine Reproduction Endowed Professorship in the Veterinary Clinical Sciences department of the Center for Veterinary Health Sciences at Oklahoma State University. He received his B.S. in

animal science in 1983 and M.S. in animal reproduction in 1984 from Brigham Young University before earning his DVM from Washington State University in 1988 and PhD from University of Kentucky in 1992. He became a

Diplomate of the ACT in 2000 via the alternate route, served on the ACT Examination Committee from 2005 to 2011 (being Chair in 2010) and served as secretary to the ACT Board 2012 to 2016, ACT Vice-president 2017, President Elect 2018, President 2019 and is currently Past-president of the ACT. Holyoak's current research interests include reproductive infectious diseases, including the reproductive tract normal microbiota, the development and implementation of an equine intrauterine device for use in feral horses, and the integration of acupuncture within theriogenology. He has published on equine, bovine, and canine reproduction topics. Reed's aspiration within the SFT is to be of useful service.



Dr. Riley Thompson

Dr. Thompson received her BS in agriculture from Tennessee Tech University in 2012 and graduated with her DVM from the University of Tennessee in 2017. During her DVM education, Dr. Thompson served as the SCAAEP Co-President,

Theriogenology Club Secretary, and Class of 2017 Treasurer. She also was inducted into the Phi Zeta Veterinary Honor Society and was awarded the UTCVM Outstanding Senior Theriogenology Student Award. She is graduating with her PhD in a co-appointment between the University of Tennessee and Smithsonian Conservation Biology Institute (SCBI) in May 2020 where she focused on cryopreservation and organoid culture of domestic and endangered equid endometrial tissue. She will begin a post-doctoral fellowship in June 2020 at Colorado State University with Dr. Fiona Hollinshead developing in vitro technologies for evaluating endometrium and generating extracellular vesicles. Outside of work, Dr. Thompson enjoys reading, baking, and hiking with her dachshund, Sherlock.