



SPRING 2001

President's Message1

Discover Canada!2

Email Discussion Groups3

2001 Officers & Board of Directors3

News from the College

The Parturient Mare & Neonate Symposium4

Scientific Abstracts at the Annual Meeting6

SFT/ACT Position Statement7

SFT AVMA Delegate's Report8

Scientific Abstracts

Immunosuppression9

Adverse Impact of Heat Stress9

Evidence for Localization of PRRSV10

Genetic (Co)Variances10

Is Stress Important?11

Comparison of Histological Compositions11

Classifieds12



...from the president

by Juan Samper, DVM

Summertime is right around the corner, and I hope this newsletter finds you well. I am in the process of relocating from the land of our great northern partner, Canada, to the college of veterinary medicine at Kansas State University. As some of you know, I've taken a new position with KSU, and am pleased to be back in the states. And, I'm not the only one who has been "on the move" the last few months; your Society



has had a lot of activity since the last newsletter. I'm not sure where to start, but here we go . . .

In January of this year I attended the AVMA's Leadership Conference in Chicago with two other members of SFT's Executive Committee. I am thinking that having three of your elected officials at the conference emphasizes board dedication to leadership education in conjunction with allied associations and the AVMA. We all attended a variety of workshops intended to help us lead our Society effectively.

The Society, in combination with ACT, has approved a position statement for the Evaluation for the Breeding Soundness of Animals (see enclosed). As with our other official positions, we feel this is a positive step towards representing the concerns of our members. In addition, you may review all of our position statements by visiting the SFT website. And, as always, I encourage members to submit thoughts for the development of future position statements to the SFT office.

The Bovine and Small Animal mail list discussion groups are becoming more active by the day. I have noticed messages posted by members from around the world, proving that our Society is truly international. Both of these discussion lists have provided members, who are separated by many miles (if not continents), the

opportunity to share ideas and ask for individual case assistance. If you are not on one of the lists and would like to participate, please send an e-mail to the SFT office at sft@walkermgt.com. Please be sure to include "add to Bovine (or Small Animal) mail list" in the subject line of your message.

The Society has decided to take a proactive approach to marketing and advertising our organization. As a method to increase Society membership, and to enhance the awareness of the services provided by our members, the Society will have a booth in the exhibitions of allied associations. The board of directors is confident that sponsoring a booth at a couple of shows will promote what sets SFT apart from other associations, and why membership in SFT is a special experience.

The conference and symposium planning committees are working hard to ensure that this year's event in Vancouver is a big hit. Please be sure to read the information inside detailing what is planned for this fantastic educational conference/symposium. And, to make sure that you don't forget the success of the 2000 Symposium, Dr. Grant Frazer has included a review of the San Antonio gathering, with some supporting photos. Each year volunteers work diligently to make certain that you are offered the best in continuing reproductive veterinary education. I hope that when you receive the conference/symposium registration form in the mail, you will decide to join me in Vancouver.

So, 2001 continues to look like a very busy year for the SFT board and the Society as a whole. Please feel free to contact me if you have any comments you would like to share, or if you would like to become more involved with the SFT's ongoing projects. My new e-mail address at KSU is jsamper@vet.ksu.edu, or of course you can contact the SFT office at sft@walkermgt.com.

Discover Canada!

SFT Plans Annual Conference & Canine Symposium

Mark your calendars now and plan to attend the SFT Canine Symposium and Annual Conference, September 12-15, 2001 in Vancouver, British Columbia, Canada. Many thanks to Canine Symposium Co-Chairs, Dr. Niki Parker and Dr. Richard Fayer-Hosken for putting together a great symposium and wetlab which will feature 13.5 hours of CE as well as a Breeders/Technician Series on Saturday, September 15, which will offer 3 hours CE. Also, a big thanks to Dr. Jimmy Alexander and the individual track coordinators for putting together the annual conference program featuring tracks in Small Animal, Small Ruminant, Bovine and Equine medicine

with a total of 17 hours of CE. It will be a busy and productive time for all those who attend!

The Hyatt Regency Vancouver, 655 Burrard Street, Vancouver, British Columbia, Canada V6C 2R7, telephone: 604/683-1234; fax: 604/689-3707, is offering attendees the special room rate of \$212 Canadian single/double (with the exchange rate at publication time, this would be \$143 US). To receive this special rate, tell the hotel you are with SFT. You may make your reservations prior to August 10, 2001. After that, we cannot guarantee availability of rooms. Room cancellations require a one week

notice or your one-night's deposit is forfeited. Parking at the hotel is \$17.50 (Canadian) per day with in/out privileges.



Equine Track

- DNA and Chromosomal Damage to Sperm Induced by Cooling and Cryopreservation – Dr. Stuart Meyers
- Collection and Cryopreservation of Zebra and Grevy Semen – Dr. Jim Crump
- Relaxin, Fescue, Toxicosis and Placental Dysfunction in the Mare – Dr. Peter Ryan
- Ovarian Abnormalities – Dr. Pat McCue
- Ovariectomy – Dr. Donnie Slone
- Urogenital Surgery – Dr. Donnie Slone
- Modifying Estrus Behavior in Mares – Dr. Gary Nie
- Equine Theriogenology and CSU – Dr. Pat McCue
- Selecting a Semen Dose for Artificial Insemination – Dr. Gary Nie

Small Animal Track

- Canine Semen Freezing and Banking – Dr. Catharina Linde-Forsberg
- Canine Reproductive Management: Factors Influencing Litter Size – Russ Kelly

The remainder of the small animal track will be the Canine Symposium.

Small Ruminant Track

- State of Swine Theriogenology – Dr. Gary Althouse
- Medical Management of Urolithiasis in Small Ruminants – Dr. Allen Heath
- Reproductive Surgery in Small Ruminants and Llamas – Dr. David Pugh
- Prepartum Care and Dystocia Management in Llamas – Dr. David Pugh
- Breeding Soundness Evaluation in Llamas – Dr. Allen Heath
- Semen Preservation in Camelids – Dr. Ahmed Tibary
- Testicular Ultrasonography and Biopsy in Small Ruminant Llamas – Dr. Ahmed Tibary
- Fertilization and Embryo Development in Camelids – Dr. Ahmed Tibary
- Embryo Transfer in Camelids – Dr. Ahmed Tibary

- Approach to Diagnosis of Infertility in Camelids – Dr. Ahmed Tibary
- Endoscopic and Ultrasonographic Evaluation of Lamoid Cervix – Dr. David Pugh

Bovine Track

The Breeding Soundness Evaluation (BSE) – featuring a speaker panel consisting of:

- Dr. Jimmy Alexander, Moderator
- Dr. Peter Chenoweth – What is BSE – SFT Standards
- Dr. Al Barth – Motility
- Dr. Bob Carson – Physical Exam
- Dr. Dwight Wolfe – Collection Technique
- Dr. Gary Rupp – Why Do a BSE?
- Dr. John Spitzer – Scrotal Circumference
- Dr. Richard Saacke – Morphology
- Breeding Soundness Evaluation in Bison – Dr. Paul Whittingburg
- C-Section: What's New? What's Old? Various Techniques to include Uterect – Dr. Andre Desrochers (AABP/SFT Combined Session)
- Infertile Cows: Surgical Techniques for Diagnosis and Treatment of Infertility Problems in the Female Bovine (to include laparoscopy and rectovaginal fistulas) – Dr. David Anderson (AABP/SFT Combined Session)
- Infertile Bulls: Surgical Techniques for Diagnosis and Treatment of Infertility Problems in the Male Bovine (to include intervention in seminal vesiculitis and hemi-castration) – Dr. Bruce Hull (AABP/SFT Combined Session)
- Don't Tease a Teaser: Demonstration of Surgeries for Preparation of Teaser Bulls – Dr. Bruce Hull (AABP/SFT Combined Session)
- Current Concepts in Female Reproduction – Dr. William Thatcher (AABP/SFT Combined Session)
- Current Concepts in Male Reproductions – Dr. George Seidel (AABP/SFT Combined Session)

- Current Hormonal Therapy in the Postpartum Cow: Fact or Fiction? – Dr. Grant Frazer (AABP/SFT Combined Session)

Canine Symposium 9/14 & 9/15

- "Canine Theriogenology – There's MUCH More to It"

Canine Lectures

- Regulation of Estrous Cycle in the Bitch; Termination of Anestrus in the Bitch; and Prostatic Disease – Dr. J. Versteegen
- Transcervical Artificial Insemination – Dr. Marion Wilson
- Practical Breeding Management Bitch/Stud – Dr. Dana Bleifer
- Cloning – Dr. Mark Westhusin
- C-Sections – Dr. Robert Hutchison
- Ultrasound – Dr. Sue Finn-Bodner
- Hips and Hormones – Dr. Fran Smith

Canine Wetlabs

- Transcervical AI – Dr. Marion Wilson
- Breeding Soundness "Evaluation of the Stud Dog" – Dr. Dana Bleifer
- Fetal & Uterine Monitoring – Karen Copley

Wetlabs are limited to 60 participants

Technician/Breeder Series 9/15

- Is the Bitch Ready—Ovulation Timing and Breeding Management – Dr. Robert Hutchison
- The Myth About Vaginal Cultures – Dr. Fran Smith
- OFA versus Penn Hip – What's the Difference? – Dr. Fran Smith
- Whelping and Managing Healthy Puppies – Dr. Mushtaq Memon
- Canine Semen – What You Really Need to Know – Dr. Mushtaq Memon
- The Veterinary Practice Act – Dr. Fran Smith

Is there an E-Mail Discussion Group Just Right for You?

By Dr. Dirk K. Vanderwall

Electronic communication is clearly here to stay, and anyone with access to a personal computer outfitted with the appropriate hardware and software can utilize the various forms of electronic communication currently available. Although electronic communication can include everything from "surfing" the Internet to sending an e-mail message to a colleague down the hall (or around the world), the intent of this article is to discuss one form of electronic communication called e-mail discussion groups, which are also known as electronic mailing lists or listserves. E-mail discussion groups are electronic messaging "systems" that allow a group of users to readily and openly communicate among themselves via the

Internet; all messages (both in-coming and out-going) are automatically broadcast to all participating members of the discussion group. Generally, a discussion group is established to allow individuals with a common interest(s) to communicate with one another. In the field of veterinary medicine, there are numerous discussion groups aligned along species and specialty interests. Currently, the Society for Theriogenology operates two theriogenology-oriented e-mail discussion groups: bovine and small animal. Similarly, most of the major practitioner organizations (AAEP, AABP, etc.) have discussion groups for their members, which are directed towards the collective interests of their particular membership group. Participation in a discussion group is

voluntary; however, in order to join most discussion groups, you generally need to be a member of the "parent" organization, since participation in the discussion group is most often provided as a member benefit.

Most discussion groups are moderated by a member who oversees the "discussion" to ensure that the topics are appropriate and that members maintain satisfactory etiquette during their participation in the group. Although the appropriate electronic etiquette may vary somewhat from group to group, most mailing lists expect their participants to clearly identify themselves in every communication, avoid personal or "mean-spirited" attacks on the views posted by other members, and refrain from posting *(continued on page 8)*

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The Periparturient Mare & Neonate Symposium

The annual meeting of the Society for Theriogenology and the American College of Theriogenologists was held in San Antonio, TX during the same week as the annual AAEP meeting. This provided an ideal opportunity for the SFT/ACT organizations to offer extra equine reproduction C.E. for interested veterinarians. The “Periparturient Mare and Neonate” symposium started off the week on Tuesday, followed by the AAEP reproduction sessions on Wednesday, and the symposium lab sessions on Thursday. The SFT/ACT meeting itself was on Friday

Chart: Over 150 attendees of the symposium included representation from various other countries, shown below

Canada	4
Mexico	3
Sweden	5
Italy	5
France	2
England	1
Ireland	2
Japan	1
Ghana	1

and Saturday. Both days were filled with further equine reproduction sessions. Thus, our membership had the opportunity to update their equine reproduction knowledge over five days while enjoying the fantastic attractions of the “Riverwalk.” If you weren’t in San Antonio you missed a great meeting!!

The symposium was originally planned as a two-day event, but coordinating with the AAEP sessions meant that the program was condensed into one FULL day. Rather than delete some topics, speakers were asked to

“hit the high points” and to confine each presentation to 30 minutes. Everyone, that is, but our keynote speaker - Dr.W.R (“Twink”) Allen from the University of

Right: Dr.Hillman and Dr. Zent ensured that participants worked up a healthy appetite!! Each group of 15 participants had the opportunity to handle equipment and practice the fine art of fetotomy.



Cambridge in the United Kingdom. Dr. Allen kicked off the day at 8 o'clock with an hour-long discussion on the complexities of equine pregnancy and how the fetus initiates its delivery in what is typically an explosive, yet uncomplicated process. The assignment of most of the other speakers was to instruct practitioners on how to deal with parturient problems when they do arise.

Morning topics included hormonal support of the high-risk pregnancy; management of fescue toxicosis and agalactia; dealing with a hydrops pregnancy, ventral hernia or uterine torsion; plus fetal monitoring and management of placentitis. The session ended with a discussion of parturition induction. After lunch, participants were up-dated on safe sedation and anesthesia techniques, and this led into three presentations on obstetrics (stall-side management; fetotomy; and cesarean section). Followed was an overview of fetal membrane evaluation. The afternoon session concluded with presentations related to the neonate – resuscitation of the

compromised foal; colostrum quality; and isoerythrolysis.

A well-earned dinner on the “Riverwalk” was followed by an evening session that started with a pertinent abstract from Europe (lactation induction). The formal presentations were concluded with a discussion of fetal membrane retention and puerperal metritis. Those participants who were “still in the saddle” then had the opportunity to hear a panel discussion. Four experts shared their experiences on the management of postpartum complications in the mare. Case slides of various conditions (rectal and uterine prolapse; genital tract lacerations and ruptures; hemorrhage) were used to stimulate discussion.

Laboratory space was limited to 60 participants to ensure a meaningful “hands-on” experience. Our thanks to Dr. Bell and Dr. Castleberry from Castroville, TX for providing a site for the lab. Participants were greeted at the site with coffee and pastries. Groups of 15 then rotated through four 90-minute stations. Ultrasound machines were available for participants to practice transrectal placental assessment as



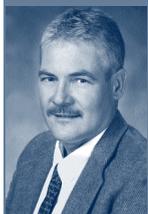
Left: The Florida contingent (Dr. LeBlanc and Dr. MacPherson) discussed assessment of milk electrolytes for foaling, evaluation of colostrum quality, and demonstrated the use of various IgG kits for determination of Failure of Passive Transfer. Participants were invited to take samples home.

SYMPOSIUM, continued from page 4

news from
the college

well as transabdominal fetal monitoring. Frozen fetuses were trucked in for the fetotomy lab, and numerous examples of fetal membrane pathology were laid out for participants to examine and discuss. A well stocked table of serum samples, colostrum and IgG monitoring kits were used to review passive transfer, milk electrolytes, and isoerythrolysis. In addition, there were displays of birth monitoring equipment and feed supplements. A 30-minute break separated the sessions and included sandwiches and soda. The lunch was a fully catered chicken dish. No one left hungry!!

We had visitors from several countries (Canada-5, Mexico-3, Sweden-6, Italy-6, France-2, England-1, Ireland-2, Japan-1, Ghana-1) and the final registration exceeded 150. My thanks to all the speakers for making this such a successful program. If you missed it, there are extensive symposium notes published in the San Antonio 2000 proceedings.



Dr. Grant Frazier
Symposium Chair



Above: Dr. Palmer shades the screen while Dr. Metcalfe uses a transabdominal probe to evaluate a fetus. Participants were able to refine their skills on 4 pregnant mares.

Right: Dr. Troedsson explains the technique and significance of uteroplacental thickness measurement. You can't get much more "hands on" than a dirty palpation sleeve!!



Below Right: It wasn't just the hands-on learning that kept participants smiling. Coffee and pastries off the bus, sandwiches and soda at the breaks, and a fully catered chicken dish for lunch.



Above Left: "How much do you bid?!" Dr. Schaffer thought he was in heaven when surrounded by 20 fetal membranes and a very enthusiastic audience. Participants had the opportunity to evaluate normal membranes and great examples of pathology (twins; placentis etc).



Scientific Abstracts at the Annual Meeting

The deadline for abstract submissions this year was April 2nd since the meeting in Vancouver is a couple of months earlier than it was in San Antonio. The Call for Abstracts was printed in the last newsletter and was posted on both the SFT and ACT web sites. The IVIS site also posted a link. Monthly reminders were posted on CAFEREPROD-L; EQREPRO-L and AABP-L. The response has been excellent and we look forward to another great meeting with clinical presentations interspersed with cutting-edge research updates.

Co-ordination of the abstract sessions at the annual meeting is the responsibility of the ACT's Scientific Committee. The fact that these sessions have become an integral part of our annual meeting is in large part due to the efforts of Dr. Dale Paccamonti. Since the Graduate/Resident competition (Jerry Rains Award) now involves a considerable amount of money, the committee has been expanded, and written guidelines have been formulated. These were discussed and approved by the joint SFT/ACT Boards at last year's meeting. The eight graduate students/residents selected to present in the Competitive session will each receive one complimentary registration for the meeting. They will be judged on the basis of the abstract's scientific merit (Written) and presentation quality (Oral). The first prize (Jerry Rains Award) is currently \$1,000, with a 2nd prize (\$500), 3rd prize (\$300) and 4th prize (\$200).

Members of the Committee are selected by the ACT Executive Board and serve a four year term. One of the strengths of our organization (SFT/ACT) is the diversity of individuals with different backgrounds, training and experience. We need both strong clinical and research-oriented people to serve on this committee. The goal is for the committee membership to encompass expertise in food animal, equine and small animal theriogenology. Dr. Peter Farin (Food Animal) will be retiring at the Fall 2001 meeting. If you would like to serve on this Committee please forward a brief

CV to Ms. Loretta Hendricks at the Nashville office. The ACT Board will select a new member prior to the Fall meeting. Current Chair (Dr. Grant Frazer – Equine/Food Animal) will retire in 2002; Dr. Margo MacPherson (Equine/Small Animal in 2003); and Dr. Jeanette Floss (Small Animal) in 2004. Committee members serve as Chair in their 3rd year. The new member will assist with scoring the oral presentations this Fall.

During April each committee member will be sent a package of abstracts that have been identified by a number in the Nashville office (author and institution removed). They will score the written submissions for introduction; hypothesis statement; experimental design; results/statistical analysis; discussion; conclusion; and overall/organization of the abstract. The four scores for each abstract will be averaged by the Nashville office. The Committee will then be presented with a ranked list from which to select abstracts for the Fall meeting. The top eight Written graduate/resident submissions will be selected for the Oral Abstract Competition. All other graduate/resident submissions will become part of the general, non-competitive pool, and may be invited for presentation elsewhere in the meeting if they rank high enough. Eight abstracts from this general, non-competitive pool will be selected for presentation on Thursday evening - prior to "Happy Hour." The remaining abstracts will be allocated to species slots throughout the Friday and Saturday program – as time permits.

Some members have questioned the ranking of the prize-winners at past meetings. The reality is that the oral presentation only accounts for 50% of the score. It is possible that the best oral presentation will not win since the written abstract did not score well. The Committee feels that this weighting is appropriate since the abstracts are published in the Proceedings. Another factor that has not been fully appreciated is that time limits must be strictly enforced. Exceeding the

allotted presentation time results in immediate disqualification. Unfortunately, this has occurred twice in the past 3 years. Since the 8 competitive abstracts must be concluded within a two-hour time slot it is essential that each presenter adhere to a strict 15-minute time frame (10 min abstract, 2 min questions, 1 min change-over). Each "judge" obviously brings a different perspective on the presentations, but generally the scoring follows a similar pattern. There aren't any glowing discrepancies. This year the Board will invite additional individuals to assist with scoring of the oral presentations. They, along with the 4-committee members plus the new member, will evaluate the Oral presentations for (1) Introduction and statement of hypothesis, description of materials & methods, results (13 points); (2) Effectiveness of visual presentation, clarity and rate of delivery (9 points); and (3) Appropriate handling of questions (3 points). An average for each of the Oral scores will be added to the average Written score, and the top 4 abstracts identified as prize-winners.

We have had an excellent response to this year's Call, and the Committee would like to extend it's appreciation to those individuals who have submitted, or who have supported the submission of abstracts by their residents and graduate students. We strive to represent all species during the abstract sessions and we look to our members to promote submissions by their students. The experience to be gained by the participants is immeasurable simply because they participated.

I have left the best for last! Last year I secured sponsorship from Harvet/Veterinary Concepts for a "Happy Hour." They were pleased with the response and have agreed to continue to support this new tradition – and to increase the check by 50%!! Please plan on a stimulating evening of top quality abstracts followed by FREE food and a cash bar (maybe drink tickets as well). A great opportunity to catch up with your
(continued on page 7)

FYI Position Statement from SFT & ACT

The below position statement was approved by the SFT and ACT board of directors.

Evaluation for the Breeding Soundness of Animals

It is given that the Model Veterinary Practice Act (AVMA, 1996) defines the uses of diagnostic techniques, either manually or mechanically, for

- (1) the testing for pregnancy, or
- (2) correcting sterility or infertility, or
- (3) to render advice or recommendation with regard to reproductive status as the practice of veterinary medicine. Determining the reproductive

soundness along with the associated prognosticating requires an extensive knowledge of the veterinary disciplines of anatomy, embryology and physiology as well as training in theriogenology, pathology and radiographic principles, all of which are provided in a veterinary medical education. As such, the Society for Theriogenology and the American College of Theriogenologists hold that evaluation for the breeding soundness of animals constitutes the practice of veterinary medicine.

takeNOTE

Make plans to attend the
**SFT Annual Conference
& Canine Symposium**

September 12-15
2001

Hyatt Regency Vancouver
Vancouver, British
Columbia, Canada

news from
the college

scientific abstracts, continued from page 6

colleagues! We encourage everyone to participate rather than to head off in small groups.

If you have any constructive criticisms or ideas that you would like to share with the Committee, please write to me:

Dr. Grant Frazier
c/o Ms. Loretta Hendricks
SFT Office
530 Church Street, Suite 700
Nashville, TN 37219

We will discuss your comments at the next Board meeting.

I trust that this update has answered any questions that you may have had about the abstract portion of our annual meeting.



***Hope to see you in
Vancouver!***



Dr. Grant Frazier
Scientific Committee Chair, 2001

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SFT AVMA Delegate's Report

April 2001

I hope this report finds everyone well and enjoying some spring-like weather. The crocuses have appeared, so the final snow should soon depart from Michigan and other northerly regions. Preparations are well underway for the next gathering of the AVMA House of Delegates (HOD), so it is a good time for a brief update on activities that may be of interest to the SFT membership.

My sincere appreciation to the individuals who put their names into the hat, willing to serve on AVMA Councils and Committees for 2001. Elections will take place during the Boston HOD sessions. With the sponsorship of the SFT, home states, or other AVMA-recognized organizations, we can claim at least 5 SFT members as candidates for a variety of positions. It is a wonderful beginning and an opportunity to have representation by individuals in a number of arenas who actively name theriogenology as a component of their work.

The HOD will meet prior to the annual meeting. The sessions are open. Anyone who is interested in particular policy issues is welcome to arrive early and listen to the sessions as they take place. There is plenty of seating behind the HOD desks. The first session will take place on Thursday, July 12, from 9 a.m. to noon with House Reference Committee meetings that afternoon. The second session will take place on Friday, July 13, from 9 a.m. to approximately 3 p.m.

I hope you will take a look at the C.E. offerings in Boston. The number and breadth of lectures has been vastly expanded during the last five years and the AVMA annual meeting has much to offer. For individuals unfamiliar with Boston, it's a great place to bring alive much early U.S. history. If you're a political wonk, Senator Orrin Hatch spoke at Salt Lake City in 2000 and Senator Ted Kennedy is scheduled to be the speaker before the AVMA PAC luncheon in Boston (Sunday, July 15). Luncheon tickets usually sell-out in advance, so you would want to contact the AVMA in Schaumburg as soon as possible.

Agenda items that may be of interest to you include:

The status of the new veterinary college at Western University, Pomona. Updates have been appearing in JAVMA.

Redistricting is underway. As a means of addressing population shifts in the U.S. and the states represented by each district, a well-constructed, multi-year plan was presented to the HOD at its January informational session. The phasing-in allows for a smoother transition from currently sitting district representatives. It's important to ease the transition between those completing their elected terms (current district divisions) to new individuals elected to lead the divisions of states within the new districts.

There have been particularly interesting rumblings regarding licensing of foreign veterinary graduates for one to two years. California has been facing pressure from individuals and corporate practice venues. The Council on Education and the current ECFVG guidelines will be challenged. There is the task of maintaining standards for the individuals eventually licensed to practice in the United States. Stay tuned.

The AAVSB (veterinary state boards) also has issues to resolve regarding AVMA oversight/standards. There certainly will be further information on this and other items of interest in JAVMA's News column both before and after July's meeting.

Please don't hesitate to send an E-mail if there is anything I can do to address specific questions. Dr. Rawson, as alternate delegate, and I will do our best to represent the SFT in Boston – hope to see you there!



Dr. Carla L. Carleton
SFT Delegate to the AVMA HOD
Carleto1@cvm.msu.edu

E-mail, continued from page 3

commercial information (i.e., advertisements). The primary benefit of belonging to a discussion group is that it allows individuals to tap into the collective wisdom of the entire group. The old adage that "two heads are better than one" is taken to a new level when you consider that a particular discussion group may have hundreds or thousands of members.

If you are not currently participating in a discussion group, you may wish to consider joining one. If you have an e-mail address, you have everything you need (in addition to your membership in the "parent" organization) to get started. It's easy to join a group, and if after joining you decide that it's not right for you, it's just as easy to remove yourself from the discussion group.

To join either SFT discussion group, send an e-mail message to sft@walkermgt.com with "add to bovine mail list" or "add to small animal mail list" in the "subject" line of your message.

Immunosuppression in Bitches with Pyometra

J Small Anim Pract 42:5-10. Faldyna,M; Laznicka,A; Toman,M (2001)

The function of the immune system was studied in 34 bitches affected by pyometra. The mean age of the animals was 8.1+/-2.8 years. Samples of peripheral blood were examined using a battery of immunological tests. Data obtained from four sets of animals, grouped according to the severity of their disease, were compared. Leucocytosis (neutrophilia and partial monocytosis) and lymphopenia were detected in 62 per cent and 35 per cent of the bitches, respectively. The increase in the number of leucocytes was higher in the severely affected bitches. Inhibition of mitogen-driven lymphocyte proliferation was the

characteristic feature of the immunological profile in bitches affected by pyometra, and this corresponded with the impairment of the general state of health. Sera from bitches showing functional inhibition of lymphocytes isolated from normal dogs. Sera from bitches affected by pyometra also had higher levels of immunoglobulins, lysozyme and circulating immune complexes. It can be concluded that pyometra is associated with an inflammatory response, but also with a marked suppression of immune system activity.



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Adverse Impact of Heat Stress on Embryo Production: Causes & Strategies for Mitigation

Theriogenology 55:91-103. Hansen,PJ; Drost,M; Rivera,RM; PaulaLopes,FF; AIKatanani,YM; Krininger,CE; Chase,CC (2001)

The production of embryos by superovulation is often reduced in periods of heat stress. The associated reduction in the number of transferable embryos is due to reduced superovulatory response, lower fertilization rate, and reduced embryo quality. There are also reports that success of in vitro fertilization procedures is reduced during warm periods of the year. Heat stress can compromise the reproductive events required for embryo production by decreasing expression of estrus behavior, altering follicular development, compromising oocyte competence, and inhibiting embryonic development. While preventing effects of heat stress can be difficult, several strategies exist to improve embryo production during heat stress. Among these strategies are

changing animal housing to reduce the magnitude of heat stress, utilization of cows with increased resistance to heat stress (i.e., cows with lower milk yield or from thermally-adapted breeds), and manipulation of physiological and cellular function to overcome deleterious consequences of heat stress. Effects of heat stress on estrus behavior can be mitigated by use of estrus detection aids or utilization of ovulation synchronization treatments to allow timed embryo transfer. There is some evidence that embryonic survival can be improved by antioxidant administration and that pharmacological treatments can be developed that reduce the degree of hyperthermia experienced by cows exposed to heat stress.



Evidence for the Localization of Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) Antigen and RNA in Ovarian Follicles in Gilts

Vet Pathol 38:58-66. Sur,JH; Doster,AR; Galeota,JA; Osorio,FA (2001)

The pathogenesis of porcine reproductive and respiratory syndrome virus (PRRSV) infection in ovary was studied in sexually mature, cycling, nonsynchronized gilts infected with the PRRSV 16244B, a virulent field strain. Previous studies have shown that PRRSV can be isolated from ovaries and is transplacentally passed from gilts to the fetuses. The cause of infertility following PRRSV infection is not known. In this study, we identified the tropism of PRRSV in ovarian tissue from experimentally infected gilts in samples collected between 7 and 21 days postinfection (DPI). Tissues were collected and examined by virus isolation,

in situ hybridization (ISH), immunohistochemistry (IHC), and double labeling to identify PRRSV-infected cell types. PRRSV was isolated in ovarian follicles at 7 days DPI. The IHC and ISH indicated that PRRSV-positive cells in ovaries were predominantly macrophages, which were numerous in atretic follicles. No evidence of infection and/or perpetuation of PRRSV in ova was observed, indicating that the female gonad is an unlikely site of persistence. No alteration of the normal ovarian architecture that would support a possible role of PRRSV infection in porcine female infertility was observed.

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Genetic (Co)Variances for Calving Difficulty Score in Composite and Parental Populations of Beef Cattle: II. Reproductive, Skeletal, and Carcass Traits

J Anim Sci 79:52-59. Bennett,GL; Gregory,KE (2001)



There is limited genetic information relating calving difficulty and body weights to other productive and reproductive traits. Such information is useful for specifying selection criteria and for predicting economic consequences of selection. Genetic, maternal, and environmental covariances of six productive and reproductive measurements with calving difficulty, birth weight, 200-d weight, and 168-d postweaning gain were estimated in 12 experimental populations of cattle. Calf (direct) genetic effects resulting in longer gestation length were associated with increased calving difficulty and birth weight. Maternal genetic effects of increased gestation length and heavier birth weight were significantly associated. Lighter birth weight and reduced calving difficulty were associated with earlier

heifer age at puberty. Increases in direct genetic effects of calving difficulty, 200-d weight, and postweaning gain were associated with a small increase in direct effect of scrotal circumference. Increased direct genetic effects of scrotal circumference were correlated with maternal effects decreasing calving difficulty and increasing 200-d weight. Direct effects of the skeletal measurements, yearling hip height, and heifer pelvic area were positively correlated with direct effects of calving difficulty, birth weight, 200-d weight, and postweaning gain, positively correlated with maternal effects for birth weight and 200-d weight, and negatively correlated with maternal calving difficulty. Percentage of retail product was positively associated with calving difficulty and negatively associated with 168-d gain.

Predicted genetic change in calving difficulty resulting from one standard deviation of selection for either calving difficulty score or birth weight was much larger than for any other traits. Selection for 200-d weight, 168-d postweaning gain, hip height, pelvic area, or scrotal circumference was predicted to have opposite effects on direct and maternal calving difficulty. Estimated genetic correlations indicate some small to moderate relationships between calving difficulty and the measured productive and reproductive traits. However, selection for reduced calving difficulty should be based on calving difficulty score and/or birth weight because of their superiority in predicted genetic change.

Is Stress Really All That Important?

Theriogenology. 55, 65-73. Dobson,H; Tebble,JE; Smith,RF; Ward,WR (2001)



There is growing concern in many parts of the world that fertility of dairy cattle is reducing as milk yields increase. Stress could be one important cause. As an example, fertility is lower after cesarian operations. Delayed uterine involution after dystocia is associated with abnormal ovarian cyclicity and prolonged intervals to the next pregnancy. There is a greater reduction in fertility as the clinical conditions of lameness, milk fever or mastitis worsen. Changes in social groupings greatly increase the number of inseminations required per pregnancy. Transport reduces the number of CL after superovulation, and can interfere with

pregnancy rates after estrous synchronization. Embryos collected from heat-stressed donors are less viable and have delayed trophoblast function. Human-animal interactions influence stress-responses in cattle the behavior of stockman and embryo transfer personnel could affect success. Putting aside financial aspects, exposure of an animal to avoidable stress compromises welfare, whether application of biotechnology is involved or not. The fact that stressors can be deleterious to such an important function as reproduction, emphasizes that stress is very important and should be minimized whenever possible.

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Comparison of Histological Compositions and Apoptosis in Canine Spontaneous Benign Prostatic Hyperplasia Treated With Androgen Suppressive Agents Chlormadinone Acetate and Finasteride.

J. Urol. 165, 289-293. Shibata,Y; Fukabori,Y; Ito,K; Suzuki,K; Yamanaka,H (2001)

Purpose: Chlormadinone acetate and finasteride are androgen suppressive agents clinically used for benign prostatic hyperplasia, but their mechanism for inducing prostatic atrophy differs. We investigated the effect of these androgen suppressive agents on prostatic histology and apoptosis using the spontaneous canine benign prostatic hyperplasia model. Materials and Methods: Animals were treated with oral chlormadinone acetate or finasteride for 25 weeks. The prostatic volumes were analyzed every 5 weeks. Prostatic androgen and estrogen concentrations, histological composition and apoptosis were determined at the end of treatment. Apoptosis was measured by in situ labeling of 3' hydroxy ends of the DNA breaks using the terminal

deoxynucleotidyl transferase-mediated deoxyuridine triphosphate nick end-labeling method. Results: There was a similar volume reduction effect with 0.3 mg/kg chlormadinone acetate daily and 1 mg/kg finasteride daily. Chlormadinone acetate decreased testosterone and dihydrotestosterone, but finasteride decreased only dihydrotestosterone in the prostate gland. The concentration ratio of estradiol-to-total androgen in the prostate was significantly increased in finasteride treated canines. Chlormadinone acetate and finasteride decreased the epithelial and stromal components. The extent of apoptosis observed in the prostate was significantly higher in the chlormadinone acetate group compared to that of the control and finasteride groups.

Conclusions: Although a similar effect of chlormadinone acetate and finasteride was observed in the induction of prostatic regression and composition of the histological components, the sustained increase in apoptosis was observed only in chlormadinone acetate treated canines. We suggest that different intraprostatic endocrine environments created by chlormadinone acetate or finasteride, which have different intraprostatic testosterone levels and estradiol-to-androgen ratios, may be responsible for the different outcomes in the extent of apoptosis.

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