

**The 2014 Bartlett Address**  
**A lighter side of theriogenology**

Bob BonDurant

Professor Emeritus, School of Veterinary Medicine, University of California-Davis, Davis, CA

It is with sincere humility that I accept the David E. Bartlett award for 2014. My respect for those who have won this award in years past causes me to beg the question: *What was the nominating committee thinking this year?* After all, I was a bureaucrat for much of my career, a result of a character weakness that made it difficult to form and deliver the word “no”.

**A very brief and mostly accurate bit of history**

It is customary at this presentation to list a bit of history of the SFT/ACT. First, there is no truth to the rumor that the Society selected “Theriogenology” as its moniker because it couldn’t fit “Obstetrics, Gynecology & Andrology” on a business card. Rather, the Society grew out of a pioneer group of veterinary clinicians and scientists who called themselves “The Rocky Mountain Society for the Study of Breeding Soundness in Bulls,” later changed to the “American Society for the Study of Breeding Soundness.” So the Society has a long history of loquacious titles.

Through the efforts of Dr. David Bartlett and others, notably Dr. Herbert Howe, Professor of Classics at the University of Wisconsin, a definitive name was chosen: The Society for Theriogenology (therio: beast; gen: origin of; and ology: the study of), accurately reflecting the subject matter and activity of veterinarians with an interest in reproduction “of beasts.” Later, a veterinary specialty encompassing the broader topic of reproductive physiology, reproductive pathology, and reproductive medicine and surgery in farm animals, pets, and wildlife, was recognized by the AVMA as the American College of Theriogenologists. So the ACT was formed as a specialty field of scientific/clinical activity, and the SFT was designed as an educational/teaching organization.

Actually, the name of the ACT has attracted a great deal of discussion, inasmuch as it was intended to be inclusive of basic and clinical fields of endeavor; male and female reproductive biology; and all species of mammals (and occasionally beyond mammals). It is especially pleasing that this goal of large and small animal theriogenologists has gained stature with the initiation of new residencies in small animal theriogenology at Pennsylvania and Auburn and at my alma mater, UC-Davis. Some of these positions are industry-funded, an increasingly used route to support full time graduate clinical studies (residencies).

I’m honored beyond description to receive this David E. Bartlett Award, not only because it comes from my colleagues, but also because it bears the name of one with whom I shared a particular interest, namely trichomoniasis in cattle.

**People who have influenced me**

I would like to recognize a few of the people upon whose shoulders I and many others stood. There are more than I can list here, but I want to acknowledge these. Not all are card-carrying theriogenologists, and not everyone was a warm and fuzzy type, but all have influenced me in a very positive way:

**John Kendrick** - One of the early members of the SFT, and an editor of *Theriogenology*. He broke me in to academic citizenship, and helped me survive academia. His untimely death was a personal loss for me.

**John McCormack** - He taught me the value of working *for the client*, maintaining one’s integrity, and the value of a thorough physical examination. He also taught me the value of a sense of humor, and his is especially delightful.

**George Stabenfeldt** - He mentored me through the preparation of several papers, lectures, and seminars. He also taught me the value of a golf break now and then. He died much too young.

**John Hughes** - John was a gentleman, to be sure, but he and I shared a difficulty in remembering people’s names, especially when our wives were not standing close by to discreetly remind us of an

approaching colleague's name. Well, I had just been hired and John was my chairman, and for some reason he called me Ron. This was in the hippie-dippie days of the late 1970's, and I wasn't sure that John approved of my three-layers of embroidered denim work shirts, or my longish hair. Anyhow, I passed Dr. Hughes in the hall of the teaching hospital one day and 15 feet down the hall, he turned and called out "Ron, could I see you in my office?" Uh-oh, I thought, I'm not even through my probationary period and he's going to fire me. He motioned me into his office, had me sit, and slid open a drawer, revealing three neatly pressed and folded dress shirts. "Ron", he said, "If I give you these shirts, will you wear them?" I knew my leverage would never be greater, so I said "Dr. Hughes" (I always called him Dr. Hughes), "If you'll call me Bob, I'll wear the shirts." He did and I did, and we were friends thereafter.

**Al Conley** - A true comparative theriogenologist, an exacting scientist, and my go-to guy for physiological and endocrinological updates (anything after about 1978); he is also a source of much intellectual stimulation. He puts the fun in fundamental research.

**Carlos Campero** - In the 1990's, this DVM, Ph.D, a gentle Argentine soul, came to our laboratory via a fellowship. Carlos' sweet demeanor belied his Herculean work ethic; he was a collaborator on the histopathology of experimental trichomoniasis. He taught me the value of maintaining a family life along with one's busy professional life.

**Mark Anderson** - A pathologist for the California Animal Health and Food Safety Laboratory, was part of the team that participated in both publicly and privately funded work on the pathogenesis of bovine trichomoniasis. His cheerful enthusiasm for the projects was infectious.

**Lynette Corbeil** - Known to many of you. She has perhaps done as much for theriogenology of livestock as any non-member of the Society. She is a UC San Diego (and UC Davis) veterinary microbiologist whom I met over the phone. It was the most serendipitous phone call I ever made. I called her to see if our little journal club was interpreting her results concerning female reproductive tract immunity as she did, and further [gulp], would she want to collaborate on trichomoniasis research? She graciously said "Yes," and the collaboration lasted for more than 20 years.

Several years ago the NIH hosted a symposium at the Hamilton laboratory in Montana. The title/subject of the meeting was: "Prospects for Molecular Vaccines for [non HIV] Sexually Transmitted Diseases." (Was it named by the same committee that named the SFT?) There were two veterinarians in attendance: Lynette Corbeil and myself. The rest of the high-powered types at the meeting got up and talked about the biology of their favorite non HIV STD bug, concluding with the phrase "and that's why there will probably never be a vaccine for X." From the back of the room came a small stirring and a righteous Dr. Corbeil advanced to the front of the room where the microphone was. "I don't know what all this gloom and doom is about STD vaccines," she said. "We've had a relatively efficacious and commercially available vaccine for bovine venereal campylobacteriosis for years." One could have heard a pin drop. Also, it was at this conference that I heard the term "herd immunity" applied to the human species for the first time. It wasn't especially new, but it sounded like they had discovered it.

**Maarten Drost** - Whatever precision I have adopted, I have adopted it from Maarten. He has been a mentor, a friend, and a collaborator throughout my career. It was a fitting finish to my career that I ended it as I began it, behind a cow (in this case a water buffalo), with Maarten.

**Linda Munson** - There are many stories I could tell about Linda, mostly dealing with her strength and determination and her courage. I choose to remember her as proud and funny, such as the time when I suggested that, in order to save time on a collaborative project we were working on, I might read the histopathology slides instead of Linda; to which she replied, only with a gesture, i.e., she dropped her glasses down her nose and stared at me. I got the point

**Gary Anderson** - Introduced to me by Maarten Drost, Gary, who was in the Department of Animal Sciences, UC Davis became a life-long friend. His sparkling wit and appetite for hard work - physical and mental - were an inspiration. As the captain of the Embryo Transfer team he directed the efforts of Animal Science faculty and graduate students, veterinary faculty and students, and technical staff. And he patiently taught basic embryology to a rookie vet school faculty member. He retired to Michigan, but not before leaving us with a lifetime's worth of stories.

**Peter Kennedy** - A treasure of knowledge and anecdotes, and a killer tennis player. I was lucky enough to coauthor a paper with him and a couple of other faculty members. Peter was on sabbatical leave in Australia, out of immediate reach, i.e., before the internet, email, etc. Between the time the paper was submitted and the time it was published, one of the co-authors died. I duly noted that status change with an asterisk and an explanation, sent out copies of the proofs to all co-authors, and returned the paper to the journal for publication, with instructions to send Dr. Kennedy some copies of the final published paper. Apparently, the asterisk caught his attention, because it was squarely over *his* name, instead of being over the deceased's name. His faxed response simply said "Hey, I'm down under, but I'm not down under *there*."

### **Stupid things I wish I'd never said or done**

The opportunity to collaborate with the above people and many others during my career has been a privilege. But not all collaborations went so well. I still cringe with shame and horror at the time that I stuck my foot in it while collaborating with a Human Infertility Clinic. They were working on a sperm-in-mucus assay, using the bovine as a model. One afternoon, I brought bovine semen and cervical mucus samples down to the laboratory, as was my habit on Wednesdays. Dr. Sikes (not his real name) didn't look up from his microscope, but motioned me to put the samples on the bench. I did so, and went down to the locker room to change out of my coveralls. When I came back to the laboratory, Dr. Sikes was still looking through the 'scope, but he had the TV monitors on, and an undiluted, unstained semen sample with a few spermatozoa struggling across the field displayed on those monitors. Many of those sperm that were visible, even in an unstained preparation, had obvious morphologic defects, which surprised me, because I had collected semen from that bull every Wednesday for the last 10 weeks, and that bull had "passed" his SFT testing each time. Trying to make light of the situation, I looked up at the monitor and said: "Gee, that guy looks like he oughta be at McDonald's". I saw Dr. Sikes flinch slightly at the microscope. Then he arose slowly from his chair, put his arm around my shoulders, and said softly, "that semen came from that patient right there," whereupon he pushed ever so gently on an exit door, revealing a middle-aged gentleman. I hadn't noticed him! I wanted to apologize and beg his forgiveness, but Dr. Sikes wisely advised me to "just go." To this day, I can only hope that the patient didn't know what I meant!

And lastly, here's another cautionary tale, this one about being careful what one wishes for. It involved a dairy of about 400 cows (this was awhile ago), managed by an elderly father and his two 30-something sons. Our ambulatory/herd health practice had for years provided the routine herd checks for general health and reproduction, and we all agreed that something had to be done about the overall infertility in this herd. However, the record-keeping was abysmal, and we had no measuring stick by which to monitor changes. But we weren't worried - we had entered the computer age! Armed with a program that my graduate students had written, we waded into the morass of records, including loose scraps of paper, old DHIA sheets, and breeding cards. After 4-6 months, we began to get a clear idea of the 'progress' they had been making, and for the first time, we were able to show them an objective, computer-generated numbers what and where the problems were most likely coming from.

We were very proud of ourselves, thinking that with our technology, we were one step from going to the moon. Remember, this was the late 1970s/early 1980s.

The father's take on it, however, was different: "What do you need a computer for? I can tell you the problem right now, and the problem is these two boys!"

Those two boys, their father and I were all sitting in the front seat of a Chevy Suburban, waiting for the rain to stop. A family feud erupted, and ended with the two boys walking off the dairy, and their father sobbing in the cab while I wondered, what class did I miss where they taught us how to deal with *this* problem?

It was the first recorded case of computer sabotage in theriogenology.

And now, if there are any among the audience who are trained in the priesthood, please see me afterward where we can discuss hearing my formal confession(s).

Thank you again for the honor of the David E. Bartlett award.

**Others to whom I owe a lifetime's debt of gratitude:**

Misty Edmondson  
Stuart Meyers  
Doug Byars  
Nancy East

Anita Edmondson  
Joan Rowe  
Charles Hjerpe  
Rob Pashen

Barry Ball  
Mark, Carolyn Guidry  
All my grad. students