2015 Theriogenologist of the year

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I am deeply honored to be recognized in this way, especially by colleagues for whom I have enormous respect. This award was completely unexpected. When first contacted by the ACT I thought it was a request for a letter of support for someone else. I was completely surprised to learn I was actually to be the recipient. Thank you very, very much.

I am especially grateful to those who invested time and effort to nominate me or support the nomination, all without breathing a word to me. I hope I am not leaving people out, but these include Augustine Peter, Barry Ball, Gregg Adams, Don Schlafer and Soon Hon Cheong. Many, many thanks to all.

I am very proud to be a veterinarian, and very proud to be a theriogenologist. To be elected Theriogenologist of the Year is an enormous honor and extremely humbling. My thanks to you all.

This is where it started. The veterinary college of the University of Pretoria, situated at Onderstepoort, some 15 miles north of the main campus in central Pretoria. The inset shows graduation day in 1977.

Like all of you, I have been profoundly influenced by several people in my professional life and I would like to mention a few.

As a high school pupil, and throughout my veterinary education, I saw practice with Dr. Margaret Hearn. More than anyone else, she probably influenced my decision to become a veterinarian. She was an amazing person, graduating from the Royal Veterinary College in London in 1935. There were very few women in veterinary colleges at that time. Three years later, in 1938, the first Loveday report would recommend strongly against use of public funds to educate women in veterinary schools. Luckily, Professor Frederick Hobday, then the principal, disagreed and forged on in defiance of prevailing opinion and the later formal report. In 1936 Dr. Hearn emigrated to South Africa with her husband and went into private practice with Dr. Jack Boswell. This was no trivial endeavor. This was the first private practice in South Africa. Until this time, essentially all veterinarians were in the employ of national or provincial governments. Dr. Hearn came to be regarded as a specialist surgeon, although there were no formally recognized specialists at that time. So Margaret Hearn was an indomitable woman. The first time I watched her do surgery her instructions to me were: “You may feel queasy. If you do, fall that way.” She was nearing the end of her remarkable career when I interacted with her but she influenced me greatly.

Many of you will know Bill Jenkins, the best teacher I had from grade school to grad school. He taught me physiology and pharmacology at veterinary school. Later he moved to the USA, becoming first a professor at Texas A&M, then Dean at LSU. He went on to become Provost, President and ultimately Chancellor of the Louisiana System.

Not only was Bill Jenkins an exceptional teacher, he was a wise mentor who took a keen interest in his students. By the time I graduated I knew I wanted to be a theriogenologist, and that I wanted to work in academia. My theriogenology professor, against the policy of the time, offered me a position upon graduation. When I spoke to Dr. Jenkins he told me that there would be more opportunities at the University. I should go out into practice. Without private practice experience I would be of less value to my own students in the future. I came to respect this advice later and was grateful for it. Those of us in academia are often inclined to think we are at the center of the profession and it all revolves around us. Not so. The backbone of our great profession consists of the men and women who take care of animals and their owners every day, in the front lines of veterinary practice. I have never forgotten this.

So, off to practice I went. My first job was in a town called Ladysmith, in the foothills of the Drakensberg. This was a lovely area, and the practice was very varied, with dairy and beef cattle, sheep, swine, poultry, racing pigeons, horses including thoroughbred broodmares, polo ponies and pleasure horses as well as all kinds of companion animals. The practice area was large and we spent too much time driving, devoting 80 % of our time to farm calls and making 80 % of our income from companion animals.

My employer had been in solo practice for seven years, without missing a single day of work. The evening I arrived, he announced he would be leaving on vacation in the morning. So there was a baptism by fire, which I more or less survived. I started in the practice on December 12, 1977.

People observing me at that time would not have expected me to be standing before you as an honoree today. On Christmas Day I had a call for a bovine dystocia, which the farmer had already worked on for some time. I expected it would require a cesarean section, so I packed my equipment into my practice car and drove the 50 or so miles to the farm, taking with me my wife of a little over a month.

When we arrived, the cow was in a small pen. Neatly arranged around her were tiers of straw bales. The farmer's entire extended family was visiting him and I realized that watching the c-section was to be the afternoon entertainment. I forgot to mention that I had managed to graduate from veterinary school without even seeing a bovine cesarean; this was to be the first one I ever saw or performed.

Things went well as I examined the cow, confirmed that the section was indicated, blocked her and prepared her. Things even went well as I located and exteriorized the uterus, incised it and delivered the calf. Unfortunately, the calf did not survive. At this point I asked my assistant, my new wife, to pass me the suture material, and soon I realized a problem was looming. Nobody in veterinary school had told us how much suture material it took to close up a cow. I thought I had thrown in plenty, and a few packs to spare. However, by the time I had closed the uterus, I had used almost all the absorbable suture material I had, and closure of the abdominal wall took all the rest of the sterile suture material – absorbable and non-absorbable. The skin was still gaping open, and my appreciative audience was unaware of my plight. I summoned the farmer and had a brief conversation. He quickly fetched his fishing equipment and a bowl of alcohol. We soaked fishing line in alcohol, and used it to close the incision. Cows being resilient patients, she made a good recovery. It did start a trend though, and I think I did bovine cesarean sections on three of the next four Christmas Days – albeit with the necessary supplies.

I obviously needed a lot of help, and I received it. I have been shaped as a veterinarian and particularly as a theriogenologist by a large number of extremely talented people, and I would like to pay tribute to some of them.

A few were formal mentors and these included professors Brough Coubrough and Henk Bertschinger in South Africa and Bill Bosu in Wisconsin.

Several other distinguished theriogenolgists "adopted" me and treated me as if I were a formal mentee. In this way I received generous advice and help from Ollie Ginther in Wisconsin and although I was not formally a member of his group he allowed me to participate in his group during a very exciting period of development of reproductive ultrasonography in horses and cattle. At Cornell, Steve Roberts and Ken McEntee, both retired, gave me regular advice and many of their teaching materials. Bob Kenney was equally generous with time and advice although he was obviously in Pennsylvania, and Bob Hillman was and remains a source of much information and insight.

Apart from formal and informal mentoring I have learned a great deal from my interactions with the many extremely talented people who have been my colleagues in Pretoria, Wisconsin and at Cornell, some of whom are listed here, and many of whom have achieved great distinction.

Not only have I learned from extraordinary theriogenologists and reproductive scientists, but many colleagues in other disciplines have taught me much about my own discipline. So I am grateful to Sheila McGuirk, Tom Divers and Ken Hinchcliff for much that they have taught me about medical matters, to Susie Fubini and Rick Hackett for making me a better reproductive surgeon and to Barry Cooper and Dave Slauson for many insightful conversations about pathogenesis of disease in general and inflammation in particular.

In the same vein I could never have made progress in research without wonderful collaborators, including Ron Butler, Chuck Guard, Rodrigo Bicalho, Stephen LeBlanc and Martin Sheldon.

Teaching is a two way process and I am sure I have learned as much from students and trainees as they have from me. We are extremely privileged in veterinary academia to work with some of the most talented, intelligent, dedicated young people that there are. Their curiosity, questions and sometimes even

disagreements lead us continually to new discoveries. I am grateful to all who have challenged me or prodded me to explore new questions.

The list of people I have learned from continues. Animal owners, animal caretakers and many others have impressed me with their powers of observation and insightful comments, even if they do not always have the right explanations for their observations.

Perhaps my early career in Ladysmith with a menagerie of species initiated my ongoing passion for comparative veterinary medicine and for comparative theriogenology. I am well aware of the demands for species-oriented practitioners in private practice settings. However, I believe that initial veterinary training, and initial specialist training in theriogenology, benefit from a comparative approach. The things we know in some species help us develop new knowledge in other species, sometimes by extrapolation, sometimes by similarities, other times by marked differences. Sometimes the fact that we know something in one species is useful even if only because it makes it obvious that we lack knowledge of the same process in another species and provides an incentive to explore or discover the missing information. A broad species knowledge also allows a platform for development of knowledge in wild or exotic species.

In some instances, domestic animals make good models for reproductive processes or disorders in humans, and this also represents an arm of comparative theriogenology that we should develop more fully.

My career has spanned an extremely exciting period in theriogenology. I graduated in time to be one of the first embryo transfer practitioners in cattle, sheep and pigs in South Africa, and now we see cloning, transgenesis, IVF, ICSI, gamete and embryo cryopreservation routinely in many species. Likewise, our repertoire of diagnoses and treatments of reproductive disorders continues to increase rapidly, with considerable benefits to our patients, our clients, and to society in general.

At the same time, there is a great deal of knowledge that resides in each of you, and which never reaches the profession as a whole. I urge you to share this information, formally or informally.

I applaud those whose efforts have ensured that we have meetings like this one to exchange ideas and information. Similarly, the advent of list serves like the ones that serve diplomates and others with an interest in reproduction, is a great boon to us all. Even though I sometimes wonder if my old compatriot Rob Lofstedt does nothing but wait eyes on the monitor and fingers on the keyboard to respond to any request, I genuinely respect his willingness to contribute freely to debate and greatly appreciate his generosity in sharing his meticulously prepared photographs depicting reproductive processes and disorders. I tend to be a "lurker" on this list serve, and benefit more from the wisdom of others than I contribute. I suspect the same is true for many of you and I urge you to be more forthcoming with your opinions, knowledge, experience and insights. This fuels progress in our discipline faster than ever before. Please participate. I have mentioned my respect for private practice. A lot of knowledge is generated in practice and is not readily disseminated to the wider profession. Do not be afraid to disagree and to enter into respectful, even if vigorous, debate. Without it, our continued advance is not possible.

Although we have made great progress and continue to do so, and although I have said how much I appreciate informal avenues for exchange of knowledge and opinion, much of our practice in theriogenology is still based on information that would be considered the least reliable of medical evidence. Many routine practices lack evidence that they are efficacious, even some that are very common. I urge you all to be skeptical and questioning, and where possible to put habits and theories to the test in a rigorous way, and then to disseminate the results in a way that contributes to improved practice in animal reproduction to the benefit of all.

Theriogenology is not only fun. It is a critical discipline for our profession and our world. Reproduction is fundamental to all animal production systems and improved reproduction is often key to enhancing sustainability and reducing the environmental footprint of such production systems. It is also of cardinal importance in companion and performance animal practice. Reproduction is critical to preserving environmental health and species diversity, whether by improving reproductive success or by creative means of contraception. In these ways, our discipline is of enormous importance to the future of

our profession, and to the future of our society and even our planet. My hope is that we will all enjoy the practice of our discipline and feel some pride that it contributes to the welfare of animals, people and our environment in important ways. I have derived enormous pleasure and pride from being a theriogenologist. This pride and pleasure is only increased by the enormous honor you have bestowed on me today. I am deeply grateful and thank each and every one of you very much indeed.

Finally, I am grateful to my family. My wife and children have supported my every professional endeavor, and have sacrificed much to allow me to practice the profession I love. To them, my gratitude and love forever.

Thank you.