

## **Award for Excellence in Genetics and Physiology**

### **Dr John Kastelic**

This award is presented to a member of the Canadian Society of Animal Science to recognize excellence in teaching, research or extension in the fields of genetics and physiology at the provincial, federal or international levels.

Dr. John Kastelic was trained as a veterinarian, graduating with distinction from the University of Saskatchewan in 1982. After a brief stint as a practicing veterinarian he moved into the research field with positions in Saskatchewan and Wisconsin. He then went on to obtain his MSc (1988) and PhD (1990) from the University of Wisconsin-Madison. Since obtaining his PhD he has worked for Agriculture and Agri-Food Canada in Lethbridge, Alberta.

Dr. Kastelic is one of Canada's leading reproductive physiologists and he has developed a strong research program at the Lethbridge Research Centre aimed at the improvement of our understanding of cattle fertility. He has pioneered the use of two new techniques, one in the evaluation of fertility in the bull and the other in the cow. Dr. Kastelic is an international leader in the use of infrared thermography for determining scrotal surface temperature and in the use of thermography and ultrasound technology to study fertility and infertility in bulls. These findings are critical to the prediction of fertility and the understanding of infertility in cattle and humans and have considerable promise for effective therapy. Dr. Kastelic has created the first 3-dimensional image of a testis from composites of 2-dimensional ultrasound images. Because of this work the use of both thermography and ultrasonography are gaining clinical acceptance as tools in the evaluation of infertility in the male.

Dr. Kastelic's work using ultrasound for pregnancy diagnosis and fetal gender determination has led to adoption of these technologies by the cattle industry, particularly the purebred and embryo transfer industries. He has conducted extensive research on estrus synchronization in cattle, including new approaches to the synchronization of ovulation for fixed-time artificial insemination. The results of his work have been widely used by veterinarians in clinical practice and professionals in the AI industry.

Dr. Kastelic has established an international reputation for his expertise in reproductive physiology. He has been invited to speak at meetings and give lectures and short courses. He has been a guest speaker at many local and several national and international meetings and symposia. Internationally, Dr. Kastelic has worked extensively with colleagues in Brazil, giving invited presentations, teaching and spending a 10-month work transfer in that country.

Dr. Kastelic has an impressive publication record, having authored or co-authored 4 book chapters, over 50 peer reviewed scientific publications, over 80 technology transfer articles and more than 50 conference proceedings. He is an adjunct professor in the Department of Herd Medicine and Theriogenology, Western College of Veterinary Medicine and is a member of the College of Graduate Studies and Research at the University of Saskatchewan.

Dr. Kastelic was nominated for this award by Duane McCartney and Reuben Mapletoft. The Canadian Society of Animal Science is pleased to present the Award for Excellence in Genetics and Physiology to Dr. John Kastelic for his significant contributions to reproductive physiology.