

Knowledge is Power

YOUR 2019 WCDS SEMINAR SPEAKERS

Keynote Speaker



Timothy Caulfield
University of Alberta

Presentation: **When Celebrity Culture and Science Clash**
Wednesday, March 6, 2019; AM Plenary Session I

Timothy Caulfield is a Canada Research Chair in Health Law and Policy, a Professor in the Faculty of Law and the School of Public Health, and Research Director of the Health Law Institute at the University of Alberta.

His interdisciplinary research on topics like stem cells, genetics, research ethics, the public representations of science and health policy issues has allowed him to publish over 350 academic articles. He has won numerous academic and writing awards and is a Fellow of the Royal Society of Canada, the Trudeau Foundation and the Canadian Academy of Health Sciences.

He contributes frequently for the popular press and is the author of two national bestsellers: *The Cure for Everything: Untangling the Twisted Messages about Health, Fitness and Happiness* (Penguin 2012) and *Is Gwyneth Paltrow Wrong About Everything?: When Celebrity Culture and Science Clash* (Penguin 2015). Caulfield also has a strong social media presence and is the host and co-producer of the documentary TV show, *A User's Guide to Cheating Death*.

Presentation Overview: Celebrities are everywhere! And this matters. Seriously. Research shows that popular culture has a profound influence people's health. In this fun and provocative presentation, Timothy Caulfield will examine what science tells us about the influence of popular culture and why this trend has become crucially important issue. He will also debunk common health myths and provide practical, evidence-based, recommendations for individuals seeking to live a healthy lifestyle. Finally, Caulfield will review what the emerging evidence tells us about how we can all take steps to push back against pseudoscience.



Rafael Bisinotto
University of Florida

Presentation: **Timed AI in Context: Fitting Reproductive Programs to Cows' Physiological Needs**
Thursday, March 7, 2019; PM Concurrent Session VI

Rafael Bisinotto graduated from the College of Veterinary Medicine and Animal Sciences at the University of São Paulo in 2007. From 2008 to 2014, he completed a MS degree in Animal Molecular and Cellular Biology and a PhD degree in Animal Sciences at the University of Florida, both with a focus on dairy cattle reproduction. In 2015, Rafael worked as a post-doctoral associate at the College of Veterinary Medicine from Cornell University. Rafael joined the faculty group at the College of Veterinary Medicine from the University of Florida in 2017. He is a member of the Food Animal Reproduction and Medicine Service. His teaching and research interests focus on the understanding of reproductive biology and strategies to improve reproductive performance in dairy herds.

Presentation Overview: Reproductive performance is a major component of dairy herd sustainability and timed AI protocols provide a useful platform for systematic control of reproduction. Rafael will discuss how tailoring such programs to the needs of each herd and, to some extent individual cows allows for improvement of fertility outcomes while optimizing the use of resources.



Phil Cardoso
University of Illinois

Presentation: **Strategies to Alleviate Aflatoxin Deleterious Effects on Performance, Inflammation, and Oxidative Stress in Dairy Cows**

Wednesday, March 6, 2019; PM Concurrent Session III

and

Presentation: **Impact of Feeding Amino Acids on Health, Performance, and Fertility of Dairy Cows**

Thursday, March 7, 2019; PM Concurrent Session VI

Dr. Phil Cardoso is an associate professor at the University of Illinois at Urbana-Champaign. He received his D.V.M. and M.S. degrees from the Universidade Federal Do Rio Grande do Sul in Brazil, and his Ph.D. from the University of Illinois. Since 2012, Cardoso has established a unique program that seamlessly blends his teaching, extension, and research efforts using a business model to give students opportunities to evaluate dairy farms. His research builds from questions asked by dairy producers and focuses on the impact of nutrition on metabolism, reproduction and health in dairy cows, as well as mechanisms to improve forage quality.

Presentation Overview: Phil will discuss the immunological impact of dairy cows being exposed to aflatoxin (mycotoxin) and new insights on strategies for its prevention (Session III). Phil will also talk about the role of rumen-protected amino acids supplementation during the transition period and their impact on fertility, health, and production of dairy cows (Session VI).



Mark Carson
EastGen Genetics

Presentation: **Integration of Reproductive and Genetic Inventory Management**
Thursday, March 7, 2019; PM Concurrent Session VI

Mark was hired by EastGen in 2008 to assist producers with analysis and improvements in herd reproductive performance. Mark now manages the Reproductive Solutions Team and has a keen interest in working with farm data to find management opportunities and using technology to improve herd performance. Mark works with dairy herds across Ontario and the Maritimes, as well as internationally in United States., Eastern Europe and the Middle East. He attended the Ontario Agriculture College where he graduated with a Degree in Animal Science in 2006. After an exchange to California Poly Tech, studying large herd management, he continued his education at the Department of Population Medicine at the Ontario Veterinary College with a Masters in Dairy Health Management focusing on the health performance of transition cows. He is still actively involved with the University of Guelph working the Dairy Challenge program as an Assistant Coach.

Presentation Overview: During his presentation, Mark will discuss leveraging tools and information available to dairy producers to make genetic and reproductive management decisions. Review benchmarks and systems that we currently use to measure herd performance, as well as propose new methods and metrics for the future.



Ronaldo Cerri
University of British Columbia

Presentation: **Using Activity Monitors to Modify Reproductive Programs**
Thursday, March 7, 2019; PM Concurrent Session VI

Ronaldo Cerri is an Associate Professor at the University of British Columbia. He received his DVM at Sao Paulo State University and his MSc and PhD from the University of California, Davis. In 2010, he completed a Post-Doctoral Fellowship at the University of Florida. Ronaldo's research aims to discover and develop solutions to fertility issues that affect dairy and beef cattle. His laboratory has focuses on sustainable technologies to improve reproduction efficiency in cattle, such as the use of automated methods for detection of estrus and ovulation. Moreover, he tries to better understand the effects of inflammation and health disorders on the cross-communication between the uterus and the embryo. His laboratory actively collaborates with colleagues in Canada and overseas to complement different areas of study and maximize the strengths within each group.

Presentation Overview: The talk for this year's WCDS will present data on how activity monitors can generate useful information that is directly associated with fertility, but currently not used in commercial systems. New data on reproductive programs using activity monitors and targeted interventions in estrus-detection based programs that can significantly increase pregnancy per AI will also be presented. A balanced approach to reproductive programs that emphasize estrus detection, high pregnancy per AI and targeted interventions by maximizing the use of data is the approach to reproduction programs that can generate economic and social sustainability in modern Canadian dairy farms.



Jeroen De Buck
University of Calgary

Presentation: **No Guarantees with Johne's Disease**
Thursday, March 7, 2019; PM Concurrent Session V

Jeroen De Buck is a founding member of the Faculty of Veterinary Medicine at the University of Calgary, awarded for his contributions to the development of a new Veterinary Medicine curriculum. He is a tenured full Professor in Veterinary Bacteriology in the Department of Production Animal Health, University of Calgary and adjunct Professor in the Department of Animal Sciences, at the Faculty of Agricultural & Food Sciences at the University of Manitoba. He has a Bachelor's and Master's Degree in Bio-Engineering from Ghent University, a second Master's Degree in Laboratory Animal Sciences and a PhD in Veterinary Medical Sciences from Ghent University.

For more than 19 years Jeroen has studied bacterial infections in humans and animals, with a long time focus on bovine bacterial infections, in particular Johne's disease, bovine mastitis and digital dermatitis. Jeroen is an expert on bacterial pathogenesis, bacterial genomics and diagnostic test development. He has published more than 90 papers in peer reviewed journals, half of which are on Paratuberculosis.

Jeroen manages a large and very well-funded lab and he has supervised 17 grad students, 4 postdocs and more than 40 undergraduates in his lab. Jeroen has been the Canadian representative on the Board of Directors of the International Association for Paratuberculosis since 2010. He has organized 8 editions of the Symposium for Canadian Map researchers, Banff, 2008-2014.

Presentation Overview: Jeroen will discuss the lessons learned from Johne's disease infection trials in cattle and mice, from diagnostic development, from investigating immune responses and supporting Johne's disease testing and surveillance on Canadian dairy farms.



Trevor DeVries
University of Guelph

Presentation: **Consistency is Key When it Comes to Feed Consumption in Dairy Cows!**

Wednesday, March 6, 2019; PM Concurrent Session III
and

Presentation: **Managing Robot Herds to Optimize Health and Welfare**
Friday, March 8, 2019; AM Plenary Session VII

Trevor DeVries is a Professor in the Department of Animal Biosciences at the University of Guelph and Canada Research Chair in Dairy Cattle Behavior and Welfare. Trevor received his B.Sc. in Agriculture from The University of British Columbia (UBC) in 2001. Immediately following he began graduate studies at UBC, where he received his Ph.D. in 2006. Following that, he spent one year as a post-doctoral fellow with Agriculture and Agri-Food Canada. In 2007 he was appointed as faculty with the University of Guelph in the Department of Animal Biosciences. In that position Trevor leads a highly productive research program focused on dairy cattle behaviour, nutrition, management, and welfare.

Presentation Overviews: In his first presentation (Session III), Trevor will discuss how dairy cow health and production are optimized when cows have access to a balanced diet, and consume that ration as presented, and in a manner that is good for them. That consistency in diet consumption is only achieved through the use of quality feed ingredients, proper ration formulation and preparation, and management of that ration at the feed bunk. This includes managing forage particle size, ration moisture content, and consistency, timing, and frequency of feed delivery and push-up.

In his second presentation (Session VII), Trevor will discuss how the health and welfare of dairy cows managed in robotic milking herds are highly dependent on housing design and management, and have a direct impact on productivity. Robot milked cows must have both the desire and ability to milk voluntarily, as well as meet their other behavioural needs. To achieve these, producers must focus on minimizing the risk of conditions such as lameness, injuries, ketosis, and mastitis through proper nutritional management and ensuring clean, comfortable housing.



Gordie Jones
Central Sands Dairy LLC

Presentation: **New Concepts in Dairy Cow Barn Design**

Wednesday, March 6, 2019; PM Concurrent Session II
and

Presentation: **Better Fresh Cows**
Thursday, March 7, 2019; PM Concurrent Session V

Gordie Jones currently lives in De Pere, WI. He attended Michigan State University and received his Bachelor of Science in Dairy Science and his Doctorate of Veterinary Medicine in 1977. He practiced, Dairy Performance Medicine, in Wisconsin for 22 years. Gordie was a Technical Service Specialist for Monsanto Dairy for 3 years.

Gordie is currently an independent dairy performance consultant and a partner of Central Sands Dairy LLC. Central Sands Dairy is a 4,000 milk cow dairy. He also has worked, for Quality Milk Sales, as a production consulting specialist and a nutritionist for a consortium of large dairies. Gordie is the designer of Fair Oaks Dairy in Indiana. Fair Oaks Dairy is a dairy farm with more than 20,000 cows. He was also the nutritionist and on the management team for the first 7 years, until starting Central Sands Dairy, where he was the designer and managing partner for 5 years.

Gordie has consulted with dairy producers and veterinarians both across the U.S. and Globally, on dairy herd performance, nutrition, cow environments, dairy housing, expansion, dairy management, personal SOPs, and cow comfort. He has placed considerable emphasis on housing design to keep, cows clean, dry, and comfortable. He has influenced the development of several cow comfort features in barn construction through work with environmental consultants and contractors.

Gordie is the developer of the "Goldilocks Dry Cow Diet" (Controlled Energy Diet). Last year at CSD, 4,400 calving's, and 7 displaced abomasum's (DA's). He was awarded the Merit Excellence in Preventive Medicine Award for Dairy by the American Association of Bovine Practitioners in 2001. That is the highest honor for performance in AABP. Gordie and his wife, Mary, have been married 46 years and have 3 children.

Presentation Overviews:

In his first presentation (Session II), Gordie will discuss No Frozen Manure, No Heat Stress, & No Cow "Bunching" – A new building or Retro fit to solve the three biggest problems in dairy housing. And provide the freshest air to all cows, in all parts of the dairy facility, at all times, with reduced electric (hydro) use.

In his second presentation, Gordie will discuss how dry Cow Management is the single most important phase of Dairy Production. What you do upstream is way more important than what you are doing downstream. Higher peaks, more milk per cow, less disease & metabolic problems are all possible, with attention to what you do to the dry cows.



Andria Jones-Bitton
University of Guelph

Presentation: **Mental Health in the Dairy and Livestock Sector**
Wednesday, March 6, 2019; PM Concurrent Session II

Andria Jones-Bitton is a veterinarian and Associate Professor of Epidemiology in the Department of Population Medicine at the Ontario Veterinary College, University of Guelph. Her current research largely centres on the epidemiology of mental health and resilience in the agricultural and veterinary sectors. Continuing areas of research include foodborne, waterborne and zoonotic diseases, and public health. She uses a mixed research methods approach (quantitative and qualitative) to achieve her research objectives. Andria loves Canadian agriculture and the veterinary profession, and is proud to work with Canadian farmers, veterinarians, and students.

Presentation Overview: Good mental health amongst Canadian farmers is vital to a strong agricultural sector. This presentation will: review mental health statistics from a national survey of Canadian farmers, with emphasis on the dairy sector; discuss opportunities and threats facing Canadian agriculture as they relate to farmer mental health; and discuss on-going and new efforts to support farmer mental health in Canada.



Crystal Mackay
The Canadian Centre for Food Integrity

Presentation: **Public Trust in Dairy: So What? Now What?**
Wednesday, March 6, 2019; AM Plenary Session I

Crystal is the President of the Canadian Centre for Food Integrity, with a vision for helping Canada's food system earn trust by providing research, resources, dialogue and training. She is a dynamic presenter who has delivered hundreds of presentations to a broad range of audiences from farmers to university students to CEOs across North America.

Crystal has over 20 years of experience working in communications and executive positions related to public outreach and agri-food sector collaboration through her roles with Farm & Food Care, Ontario Farm Animal Council, AGCare and Ontario Pork provincially and nationally.

Crystal is proud of her farm roots in the Ottawa Valley. She is a graduate of the University of Guelph and several executive leadership programs. She is a past President of the University of Guelph OAC Alumni Association, and a former director of both the Ontario 4-H Foundation and the Poultry Industry Council.

Crystal's leadership and dedication to advancing the agri-food sector has been recognized with several awards, including the University of Guelph Medal of Achievement and the Canadian Animal Health Institute Industry Leadership award.

Presentation Overview: Public trust in food and how it's produced is a foundation for success and innovation for the dairy industry. Find out what Canadians think and feel about our food system based on some groundbreaking research with North American comparisons. Crystal will also share insights for actions on how to make a difference to increase public trust.



Jessica McArt
Cornell University

Presentation: **Being a Mom is Hard: Calcium Demands of Early Lactation Dairy Cows**
Thursday, March 7, 2019; PM Concurrent Session V

Jessica McArt is an Assistant Professor in the Department of Population Medicine and Diagnostic Sciences at Cornell University. She grew up in the dairy-rich state of Alaska and attended Dartmouth College for her undergraduate degree. Following a 4-year stint as a cross-country ski racer, Jessica completed her veterinary degree at Cornell University and spent two years as an intern and resident in Cornell's Ambulatory Clinic. She left New York upon completion of her PhD in epidemiology and spent the next 1.5 years as an Assistant Professor of Dairy Population Health Management at Colorado State University before returning to Ithaca.

At her current job, Jessica performs clinical service for the Ambulatory and Production Medicine Clinic where she serves as Section Chief, teaches veterinary students both in the classroom and on farms, and conducts applied research on periparturient diseases in dairy cattle. When not at work, Jessica enjoys spending time with her husband, Scott (a bee researcher), and daughters Sigrid and Tazlina along with their cat and 3 goats.

Presentation Overview: In her presentation, Jessica will review calcium physiology in the periparturient period of dairy cows and discuss the incidence of clinical and subclinical hypocalcemia. She will then discuss classification of chronic subclinical hypocalcemia and the health and production consequences associated with this pervasive disorder.



Al Mussell
Agri-Food Economics Systems

Presentation: **Milk Supply Management After USMCA: An Economic Policy Analysis**
Wednesday, March 6, 2019; AM Plenary Session I
and
Presentation: **Understanding the Internal Frictions Weighing on Milk Supply Management**
Wednesday, March 6, 2019; PM Concurrent Session II

Al Mussell is the Research Lead, and founder, of *Agri-Food Economics Systems, Inc.* His areas of research expertise are farm management, agricultural marketing, and agricultural policy. For fifteen years, Al served as Senior Research Associate at the George Morris Centre. Prior to that Al worked as an economist in the milk procurement division of Land O'Lakes, Inc. in Minnesota.

Al holds Bachelors and Master of Science degrees in agricultural economics from the University of Guelph, and a Doctorate in agricultural economics from the University of Minnesota, where he was a Fulbright Scholar. He is a past President of the Canadian Agricultural Economics Society, the scholarly society for agricultural economics in Canada, a past director of the Progressive Dairy Operators, a dairy industry educational organization, and an alumnus of the US State Department International Visitor Leadership Program. He currently serves as the Chair of the Ontario Pork Industry Council.

Presentation Overviews: The purpose of Al's first presentation (Session I) is to explore the provisions of the US-Mexico-Canada Agreement (USMCA) that relate to dairy trade and (especially) milk supply management in Canada. The presentation will explore the access granted to the Canadian dairy market to the US in the USMCA, the access to the US market granted to Canada, and provide an explanation of how it appears the changes to milk Class 7 will impact the milk supply management system in Canada.

The purpose of Al's second presentation (Session II) will be to examine the challenges facing milk supply management based on internal factors and established trends. It will bring together economic demographics, dairy farm finance, and milk marketing trends as well as selected external factors in providing a perspective for discussion on positive agenda for development in milk supply management.



Vern Osborne
University of Guelph

Presentation: **Mission 2050: Building Envelopes for the Future**
Wednesday, March 6, 2019; PM Concurrent Session II

Vern Osborne was born and raised on a Holstein Master Breeder dairy farm near Rockwood, Ontario. He joined the faculty of Ridgetown College in 1986 as a Senior Lecturer/Dairy Researcher and later served as a College Professor in the Animal Science department (1993-2001). In January 1990 he was seconded from Ridgetown to Semex Canada where, as Marketing Director for computer systems, he developed the current genetic mating program. In January 2002, he joined the Animal Biosciences department at Guelph as a Professor in ruminant nutrition.

Vern is internationally known for his expertise in water nutrition, and value enhanced dairy products and has been an invited speaker in many countries. He is also an internationally recognized designer of dairy facilities. Vern was the Science and Design Lead for the Mission 2050 project, a conceptual framework plan that would replace Guelph's/OMAFRA's dairy, swine and poultry research facilities. The new dairy facility was completed this year. Vern has taught in the diploma and degree programs at Ridgetown and Guelph for 30 years. He was recently awarded the North American Colleges and Teachers of Agriculture (NACTA) teaching award of merit and the UGFA distinguished professor award for excellence in teaching.

Presentation Overview: During his presentation Vern will discuss that in the future, the building envelope to house livestock has to generate as much income regardless of what ever is housed in-side it. High-performance building design will enable farms to become energy and nutrient islands and run autonomously. Zero emissions design will strengthen the environmental and social contract for consumers.



Greg Penner
University of Saskatchewan

Workshop: **Addressing Precision Feeding Strategies for Cows in Automated Milking Systems**
Tuesday, March 5, 2019; 1:30 pm – 4:30 pm
and
Presentation: **Feeding Management for Cows in Automated Milking Systems: What We Know and What We Still Need to Learn**
Wednesday, March 6, 2019; PM Concurrent Session III

Greg Penner is currently an Associate Professor and Centennial Enhancement Chair in Ruminant Nutritional Physiology. He joined the Department of Animal and Poultry Science at the University of Saskatchewan in 2009 after obtaining his BSA (2004) and M.Sc. (2004) degrees from the University of Saskatchewan and his PhD from the University of Alberta (2009). His research covers forage utilization, ruminant nutrition, and regulation gut function in cattle. Dr. Penner has a well-funded research program supporting and has trained more than 20 graduate students and postdoctoral fellows. He has published over 95 peer-reviewed papers and provided over 60 invited presentations. His contributions have been recognized by the Canadian Society of Animal Science (Young Scientist Award) and the American Society of Animal Science (Early Career Research Award). Greg also has an active extension program helping to communicate research results to extension staff, consultants, and producers.

Presentation Overviews: In his workshop (Tuesday PM), Greg will cover the theory associated with precision feeding strategies, diet formulation, cow responses associated with the implementation of precision feeding strategies, and challenges associated with imposing precision feeding in group-fed cattle. By the end of the workshop, participants should be able to improve their ability to assess precision feeding strategies under commercial settings.

Greg's presentation (Session III) will cover the current knowledge on how altering concentrate provision in the robotic milking system affects intake of the partial mixed ration and milk and milk component yield. Special focus will be given to challenges and opportunities associated with precision feeding approaches.



J. C. (Kees) Plaizier
University of Manitoba

Presentation: **What is Gut Health and How to Improve It?**
Wednesday, March 6, 2019; PM Concurrent Session III

J. C. (Kees) Plaizier is Professor in Dairy Nutrition and Management at the University of Manitoba. He grew up on a dairy farm in the Netherlands, and obtained his M.Sc. in Animal Science at Wageningen University (the Netherlands), in 1986. Subsequently, he worked for the Food and Agriculture Organization of the United Nations for six years. During that period, Kees collaborated with scientists in developing countries on improving the productivity of local livestock. In 1997, Kees obtained his Ph.D. in Animal Science at the University of Guelph, and remained at the University of Guelph as a post-doctoral fellow working on dairy cattle nutrition. In 2000, he joined the faculty of the Department of Animal Science of the University of Manitoba.

His current research program focuses on the enhancing health and nutrient utilization of dairy cows, as well as environmental sustainability of dairy farms, and the evaluation of novel feeds for cattle. He has authored or co-authored over 90 manuscripts in scientific journals and numerous conference abstracts, articles, extension materials and technical reports. Since January 2014, Kees has been Editor-in-Chief of the Canadian Journal of Animal Science. At the University of Manitoba, Kees teaches dairy cattle production and ruminant nutrition at the diploma, degree and graduate levels.

Presentation Overview: In his presentation, Kees will discuss how the need to feed high grain diet to high yielding dairy cows and beef cattle jeopardizes their gut health. As alternatives to these high grain diets are not available, feeding strategies that allow feeding such diets without impacting gut health must be developed. Gut health encompasses the health of digesta, epithelia, and microbiota in the digestive tract. Hence, subacute ruminal acidosis (SARA) is only one aspect of poor gut health. Improving the functionality of gut microbiota and the epithelia of the rumen and the hindgut contribute to improved gut health. Strategies such as supplementation with buffers, probiotics and yeast products can be used to improve these functionalities.



David Renaud
University of Guelph

Presentation: **Why Do Some Calves Die and Others Thrive? Exploring Factors Impacting Calf Health**
Friday, March 8, 2019; AM Plenary Session VII

Dave Renaud is an Assistant Professor at the University of Guelph and consultant at ACER Consulting. He received his DVM from the Ontario Veterinary College and a PhD in epidemiology from the Department of Population Medicine at the University of Guelph. His research focus is on identifying factors associated with calf health, specifically in the veal sector. He also works on identifying alternative management strategies to reduce the level of antimicrobial use in calves. Dave developed an interest in the health and welfare of dairy calves during his time working with a large veal operation and through the development of the Code of Practice for the Care and Handling of Veal Cattle. He is also a practicing veterinarian who focuses on preventative medicine to improve the health and welfare of dairy cows and calves.

Presentation Overview: In his presentation, Dave will discuss how calf mortality remains a challenge in the dairy and veal industries. In order to reduce these levels, it is necessary to develop an understanding of the major factors contributing to reduced calf health. These factors will be explored along with practical and measurable solutions to overcome this challenge.



Laura Solano
Farm Animal Care Associates

Presentation: **Key Considerations for the Implementation of a Foot Health Program**

Friday, March 8, 2019; AM Plenary Session VII

Laura Solano is a veterinarian, researcher, daughter of a dairy farmer and a consultant in the area of dairy animal health and welfare. She completed her veterinary degree in Costa Rica, her home country, and a PhD in Epidemiology from the University of Calgary. Her doctoral research involved identifying farm management practices aimed at controlling lameness and optimizing cow comfort in Canadian dairy herds. That work led to the publication of 8 peer-reviewed articles on the subject, multiple extension articles, proceedings and speaking engagements. Her writing publications have won editor's choice, the most-cited and the most-read article awards. Laura is passionate about understanding how housing and management impact cow health and welfare and enjoys translating science into practice to help producers overcome challenges. She is currently the principal consultant of Farm Animal Care Associates, a successful consulting business, where she continues her work delivering dairy animal care extension and outreach programs in English and Spanish. She is particularly interested in working collaboratively with researchers, veterinarians, producers, hoof trimmers and other farm advisors to design new approaches to control lameness and improve animal welfare in dairy herds.

Presentation Overview: For the past 10 years, several projects in Alberta have generated a body of knowledge in cattle foot health and well-being. Based on this information and in light of our industry's regulations and requirements to meet high standards of animal care, Laura will discuss practical and strategic approaches for reducing lameness and body injuries.



Frank van der Meer
University of Calgary

Presentation: **Bovine Leukemia Virus in Your Herd? Get Rid of It!**
Thursday, March 7, 2019; PM Concurrent Session V

Frank van der Meer graduated from the Faculty of Veterinary Medicine at Utrecht University in the Netherlands in 1996. He worked for 1.5 years in large animal practice and returned to the Utrecht University to conduct research on horse reproduction. His strong collaboration with the virology department during that time sparked his still ongoing passion for viruses. Frank completed his PhD on the activity of antiviral compounds to Retro- and Nidoviruses in 2007. In May 2008 he joined the newly established Faculty of Veterinary Medicine at the University of Calgary (UCVM) to teach vaccinology, virology, diagnostics and immunology to veterinary students. Congruently, he continued his postdoctoral research in the Faculty of Medicine, focusing on Human Immunodeficiency Virus infections. In October 2013 he was appointed as Assistant Professor of Global Health and Infectious Diseases at UCVM.

Bovine viral diarrhoea virus is of special interest due to its impact on the cattle industry, involvement in the bovine respiratory disease (BRD) complex and several unique virological features. He currently studies the transmission and evolution of this virus and the consequences of BVDV variability on vaccination strategies. Bovine Leukemia Virus and its impact on the dairy industry is his new target for exploration, a program funded by ALMA and Alberta Milk started in September 2015 aiming to design a BLV control strategy for Alberta. The bovine respiratory 'virome' (all viruses in the cow's upper and lower respiratory tract) will be characterized, especially the normal changes that will occur during the cow's life, following vaccination, antimicrobial treatment and when a cow gets sick. This is in combination with the ALMA/Genome Alberta project which aims to shed more light on the microbiology of BRD. The last topic he is currently working on is the exploration of wildlife viruses in the Canadian arctic. That viruses infect our wildlife is clear, but which viruses these are and what the impact is, is part of this study. Frank's activities reach well beyond Alberta as a leader in the UCVM/Cumming School of Medicine One Health Field School that takes place yearly in May/June in Tanzania. He works with veterinary students as part of their rotation in an interdisciplinary team to improve the livelihood of the population that primarily depends on livestock for their survival.

Presentation Overview: In his presentation Frank will discuss how enzootic Bovine Leukosis is a problem that almost every dairy farmer recognizes. In the recent past this disease was dismissed as having hardly any impact on productivity, however, we now have evidence that BLV does negatively influence cow health and milk production. The good news is that it is possible and profitable to control or eliminate BLV from your herd.



Elsa Vasseur
McGill University

Presentation: **What are the Options to Improve the Comfort and Welfare of Dairy Cows?**
Friday, March 8, 2019; AM Plenary Session VII

Elsa Vasseur is the Chairholder of the NSERC/Novalait/Dairy Farmers of Canada/Valacta Industrial Research Chair in Sustainable Life of Dairy Cattle. She received both her BSc and her first MSc in Rural Development from the Institut Supérieur d'Agriculture (ISA) in Lille, France as well as a second MSc in Animal Behaviour from AgroParisTech in 2005. She then came to Canada where she obtained her PhD in Animal Science from Université Laval in 2009, looking at on-farm assessment tools for the welfare of young dairy animals. After an NSERC Postdoctoral Research Fellowship, where she worked with some of Canada's leading researchers in dairy-cattle welfare at the University of British Columbia and Agriculture and Agri-food Canada, she took up a research position at the University of Guelph's Organic Dairy Research Centre on the Alfred Campus, before joining McGill in January 2016 as an Assistant Professor and Industrial Research Chairholder.

Elsa's academic background is multidisciplinary and areas of expertise are plural: i) applied animal behaviour science (ethology) for a better understanding of animal needs, ii) the development of outcome measures of welfare for animals in confinement and the links in between those outcomes and the risk factors in housing and management, and iii) study of knowledge and technology transfer methods to encourage adoption of new practices by farmers.

Presentation Overview: During her presentation Elsa will discuss 10 years of research work to propose options to improve the comfort and welfare of cows and help producers to be ready for the implementation of the animal care component of the national proAction® program.