



Dr. Victor E. Cabrera is an Associate Professor and Extension Specialist in Dairy Management at the University of Wisconsin-Madison Dairy Science Department. Dr. Cabrera combines applied research, interdisciplinary approaches, and participatory methods to deliver practical, user-friendly, and scholarly decision support tools for dairy farm management. These scientific tools are aimed to improve dairy farm profitability, environmental stewardship, and long-term sustainability of the dairy farm industry. During his short career, Dr. Cabrera has developed more than 40 decision support tools, published 54 refereed articles, and 5 book chapters, presented in more than 100 scientific sessions, and given talks in more than 170 extension meetings in Wisconsin, other States, and several other countries. Dr. Cabrera's work in the past 8 years has been pivotal to attract more than \$4.0

million to support his research and extension initiatives. Dr. Cabrera has been distinguished with the University of Wisconsin-Madison Vilas Faculty Mid-Career Investigator Award, Second Mile Extension award of the Wisconsin Association of County Agricultural Agents, the Pound Extension Award and the Alfred Toepfer Faculty Fellow Award from the University of Wisconsin College of Agriculture and Life Sciences, the Distinguished Achievement Award from the University of Florida School of Natural Resources and Environment, and the Foundation Scholar Award in Dairy Production from the American Dairy Science Association.



Dr. Rich Erdman is Professor of Animal Sciences in the Animal and Avian Sciences Department at the University of Maryland. Rich grew up on a dairy farm near Fort Atkinson, Wisconsin. Following completion of his Ph.D. in animal nutrition at the University of Kentucky, he joined the Dairy Science Department at the University of Maryland as an assistant professor in 1979 eventually being promoted to professor in 1991. He served as department chair from 1999-2007. His research has focused primarily on nutrition of the dairy cow with emphasis on the effects of nutrition on milk components. He has published more than 95 refereed journal articles and holds 2 U.S. patents. Dr. Erdman has taught undergraduate and graduate courses in applied nutrition, energy metabolism, and animal production systems. He has served as major professor to more than 30 graduate students who hold positions in industry and academia. He has received several

awards including the American Feed Industry Association Award for Dairy Nutrition Research in 1996 and the Dean Gordon Cairns Award from the University of Maryland in 2006. Rich was a member of the National Research Council (NRC) subcommittee that wrote the *2001 NRC Nutrient Requirements for Dairy Cattle, 7th rev. ed.*, the most widely used reference on dairy cattle nutrition. He currently serves as chair of the subcommittee that is preparing the 8th revised edition of the Dairy NRC.



Dr. Antonio Faciola is an Assistant Professor of Livestock Nutrition in the Department of Animal Sciences at the University of Florida. Prior to joining UF in the summer of 2017, Dr. Faciola served on the faculty at the University of Nevada for 4 years. He grew up on a ranch in the Brazilian Amazon, where his family raised water buffaloes, beef and dairy cattle for over 100 years. He received B.S. and M. S. degrees in Animal Sciences from the Federal University of Viçosa, Brazil, a Ph.D. in Dairy Science from the University of Wisconsin-Madison, and was a postdoc at the ARS-USDA U.S. Dairy Forage Research Center in Madison, WI. The overall research goal of his laboratory is to further our understanding of ruminant nutrition to improve the efficiency of nutrient utilization in order to enhance animal production and minimize environmental impact by livestock operations. Projects in his lab include evaluating canola meal as a protein supplement

for dairy cows, feeding different oilseeds, and determining the nutritional value of different forages for dairy cows. Methodological approaches in his lab include the dual-flow continuous culture system and the omasal sampling technique. He has been an invited speaker in Brazil, Canada, Italy, Kazakhstan, South Africa, Turkmenistan, U.S.A., and Uzbekistan. He is an Ad Hoc reviewer for over a dozen scientific journals including the Journal of Dairy Science and the Journal of Animal Science, and is currently an Associate Editor for Frontiers in Microbiology and Scientia Agricola. He was awarded the 2016 Researcher of the Year and the 2017 Early Career Innovator at the University of Nevada. For more details on his research projects, lab personnel, teaching, and publications, visit his website at: www.faciola.com



Dr. Luiz Ferraretto is originally from Brazil where he earned his Bachelor of Science degree in Animal Science from São Paulo State University in 2008. Immediately after completion of his B.S. Degree, Luiz joined the University of Wisconsin-Madison for an internship (2009), followed by earning the Master of Science (2011) and Ph.D. (2015) degrees in dairy science with a focus on applied dairy nutrition. After completing his Ph.D. degree, Luiz joined The William H. Miner Agricultural Research Institute as a Post-doctoral Research Associate. Currently, Luiz is an Assistant Professor of Livestock Nutrition in the Department of Animal Sciences at the University of Florida. His research interests include applied dairy cattle nutrition and management with emphases on starch and fiber utilization by dairy cows, corn silage and high-moisture corn quality and digestibility, the use of alternative by-products as feed ingredients, and supplementation

of amino acids and feed additives to lactating dairy cows.



Dr. Kevin M. Folta is Professor and Chair of the Horticultural Sciences Department at the University of Florida. His research program examines how light signals are sensed in plants and his group uses novel genomics approaches to identify genes related to flavor and disease resistance in small fruits. An innovative new project is testing a method to create new small-molecule drugs for use in everything from plant growth regulation to MRSA. In 2016 he was recognized with the prestigious CAST Borlaug Award in Agricultural Communications in recognition of his workshops to train scientists, agricultural producers, and medical professionals about contentious public issues in communication. He also hosts the weekly podcast *Talking Biotech* (www.talkingbiotech.com).



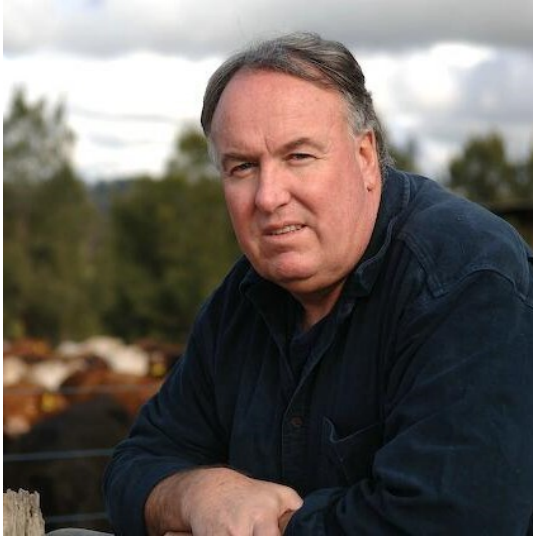
Dr. Mark Hanigan earned his Bachelor of Science degree in Dairy Science from Iowa State University and his M.S. and PhD degrees in Animal Science from UC-Davis. Prior to undergraduate work, he operated a dairy farm in Iowa. In 1993, he joined Purina Mills, Inc. as a research scientist where he worked on modeling metabolism in the lactating animal with emphasis on nitrogen metabolism. In support of that effort, he collaborated with a number of individuals both within Purina Mills and externally to develop metabolic and isotopic models of mammary, liver, and portal drained viscera tissues. Dr. Hanigan joined Virginia Tech University as an Associate Professor in the Department of Dairy Science in 2005 where he continues to work on nitrogen metabolism and modelling problems. His current research is focused in 3 areas: 1) experimentally characterizing responses of cellular signaling pathways regulating protein synthesis to individual amino acids, hormonal signals, and cellular energy supply and building a model of that system with the goal of refining amino acid requirements for lactating cattle, 2) improving models of nitrogen recycling to the digestive tract with the goal of better defining ruminally-degradable protein requirements, and 3) improving our understanding of the regulation of volatile fatty acid production in the rumen with the goal of improving prediction accuracy within our current rumen models and improving our understanding of the relationship between ruminal function and methane production. The long-term objective of the work is to improve animal efficiency and reduce the impact of food animal production on the environment.



Dr. Monty Kerley earned his Bachelor of Science degree from Southern Illinois University-Carbondale and his M.S. and Ph.D. degrees from the University of Illinois. In 1987 he joined the Animal Science Department at the University of Missouri. His major research focus has been understanding the nutritional and metabolic influences on gain efficiency of cattle. The two major thrusts of this focus has been (1) studying mitochondrial relationship to residual feed intake (RFI) differences among individual animals and the impact of selection for RFI on growth performance and (2) development of a diet formulation approach to meet amino acid requirements of cattle based upon energy consumption. Dr. Kerley retired in 2017 and is currently involved in cow-calf production and consults for beef and dairy nutrition entities.

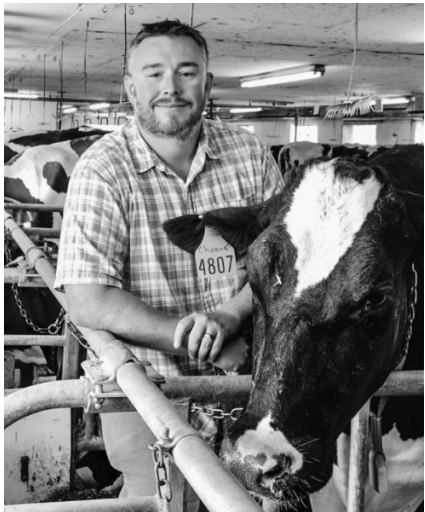


Dr. Anne Laarman is an Assistant Professor in the Department of Animal and Veterinary Science at the University of Idaho. He earned his B.Sc. (Physiology and Developmental Biology) and M.Sc. (Animal Science) at the University of Alberta and his Ph.D. (Animal Physiology) at the University of Guelph. He joined the University of Idaho in 2015. Dr. Laarman's expertise is on the interface of nutrition and physiology, focusing on development and dietary adaptation of the ruminant gastrointestinal tract. Dr. Laarman's research often targets the weaning transition and the calving transition, when dietary changes place great strain on the rumen. Current and past research experiences include short-chain fatty acid transport mechanisms and their effect on ruminal acidosis, epithelial integrity, and immune responses. His current research program focuses on the development and adaptability of nutrient uptake and gut health, and the role feed additives and management strategies in optimizing cattle performance during dietary transitions.



Dr. Ian J. Lean BVSc (Syd), DVSc (Syd), PhD (Calif), MACVSc. Ian's general interests are in improving the profitability of ruminant production. He is Managing Director of Scibus, a company that conducts research and consults with dairy and beef producers within and outside of Australia. Scibus is recognized for leadership and excellence in acidosis and meta-analytic and transition cow research. Scibus work with public and private research organizations and consults with a substantial part of the Australian Dairy Industry and to large beef herds. Ian is a past president of the Australian Association of Cattle Veterinarians and the Cattle Chapter of the Australian College of Veterinary Scientists and sits on boards of other industry bodies. He has been on

faculty at the University of California and the University of Sydney. Ian was awarded the Gilruth Prize, the Australian Veterinary profession's highest honor and in 2010 was awarded the Australian Dairy Science Award, and was awarded the DVSc from the University of Sydney in 2012 for excellence of published works. Ian has been an Adjunct Professor at the University of Sydney since 2000.



Dr. Adam Lock is an Associate Professor in the Department of Animal Science at Michigan State University. Originally from a dairy farm in the southwestern part of the United Kingdom, Dr. Lock received his Ph.D. from the University of Nottingham and completed a post-doc at that institution as well as at Cornell University. He had a research and teaching appointment at the University of Vermont from 2006 to 2009 before moving to his current research and extension appointment at Michigan State University in the fall of 2009. Dr. Lock is recognized for his expertise in ruminant nutrition and physiology and his ability to communicate to many sectors, from dairy farmers to dietitians. His research and extension programs focus on both dairy production and human nutrition and health, and the interface between these two disciplines. The central theme is fatty acid digestion and

metabolism in the dairy cow and the impact of bioactive fatty acids on animal production and human health. Current efforts concern the effect of diet on the production of biohydrogenation intermediates in the rumen, dietary strategies for maximizing milk fat synthesis, applying this knowledge to improve our ability to troubleshoot on-farm issues related to milk fat depression, fatty acid absorption in the small intestine, fat supplementation opportunities, and the potential for omega-3 fatty acids to promote dairy cattle metabolism and health. The impact of milk and dairy products on human health, in particular the role of milk fat, is also of special interest.



Dr. Josh McCann joined the Department of Animal Sciences at the University of Illinois at Urbana-Champaign in 2016 as an Assistant Professor. Dr. McCann grew up in the southeastern U.S. on a small family farm. He earned his B.S. degree in Animal and Food Science at Texas Tech University, followed by a M.S. in Animal Science at Texas A&M University, and a Ph.D. at the University of Illinois. Dr. McCann's research centers on the influence of nutrition on metabolism and subsequent efficiency and performance of feedlot cattle. His lab is striving to understand the interplay between nutrition, the rumen microbiome, gastrointestinal epithelium, and muscle development in order to connect this fundamental information to applied advances in the feedlot. To study these effects, Dr. McCann utilizes classic ruminant nutrition techniques coupled with molecular high-throughput technologies. His research goal

is to leverage new nutritional insights to improve the efficiency, sustainability, and profitability of feedlot cattle operations.



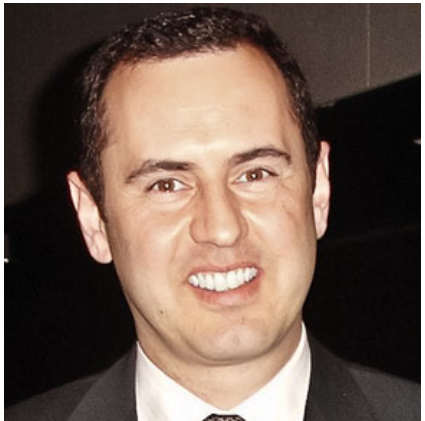
Dr. Johan Osorio joined South Dakota State University as Assistant Professor in the Dairy and Food Science Department in the summer of 2016. He received his undergraduate degree in Agricultural Sciences and Production at Zamorano University in Honduras in 2004 and his M.S. and Ph.D. degrees in Animal Sciences from the University of Illinois in 2010 and 2014, respectively. For his doctoral dissertation, Dr. Osorio worked extensively on the link between applied and molecular nutrition of periparturient cows and neonatal calves. On the cow front, he studied the interrelationships between dietary rumen-protected methionine and inflammation, oxidative stress, immune function, and large-scale transcriptome profiles in the liver of transition dairy cows. His work with calves aimed to study the potential carryover effects of prepartal maternal plane of dietary energy or organic trace minerals intake on immune

function and metabolism of the newborn calf. At South Dakota State University, Johan Osorio continues his efforts to expand the field of nutrigenomics in dairy cows by developing new techniques and methods to evaluate nutrient-gene interaction effects with the aim to improve health and performance.



Dr. Hugo Ramirez is originally from the state of Guanajuato in Mexico. He grew up surrounded by agricultural education because his father and older sister are faculty members at the Autonomous University of Chapingo, the largest agricultural university in Mexico. He attended the University of Chapingo where he completed an agricultural high school program and earned a Bachelor's degree in Animal Science. Upon graduation, Dr. Ramirez managed a state-of-the-art dairy farm in central Mexico that was equipped with a methane digester that fueled electric generators to supply energy to the farm. Subsequently, he completed his graduate education at the University of Nebraska-Lincoln conducting applied research in dairy nutrition including evaluation of corn silage hybrids and ethanol co-products for dairy cows. Dr. Ramirez joined the Texas A&M system in January of 2014 as Assistant Professor

and Director of the Southwest Regional Dairy Center at Tarleton State University and Research Scientist with Texas A&M AgriLife Research. He joined Iowa State University in the autumn of 2015 and is working on developing a research-based extension program that is producer-focused in the areas of dairy herd management, forage quality and preservation, and nutrient utilization. In addition, he teaches Applied Dairy Farm Evaluation and coaches the Dairy Challenge Team for Iowa State University.



Dr. Jose E. P. Santos is a Research Foundation Professor in the Department of Animal Sciences at the University of Florida where he conducts research and extension in dairy cattle nutrition and reproduction. Jose earned his DVM degree from Sao Paulo State University in Brazil in 1992, completed the M.Sc. and Ph.D. degrees in 1995 and 1997 at the University of Arizona, and a clinical residency in Dairy Production Medicine in 2000 in the School of Veterinary Medicine at the University of California Davis. He spent 8 years as a faculty member with clinical and research responsibilities in the Department of Population Health and Reproduction in the School of Veterinary Medicine at the University of California

Davis before moving to the University of Florida in 2008. Jose is a member of the committee for the 8th Revision of the National Research Council on Nutrient Requirements of Dairy Cattle. He has authored and coauthored 163 peer-reviewed manuscripts in the scientific literature. In addition, he has trained 7 clinical residents in dairy production medicine, and has been the major professor of 9 Ph.D. and 13 M.Sc. students, co-major professor of 7 visiting Ph.D. students, and received 7 sabbatical visitors and 92 visiting students. His primary research efforts focus on the interface between nutrition and reproduction and methods to improve postpartum health and fertility of dairy cows.



Dr. Jon Schoonmaker is Associate Professor in the Department of Animal Sciences, Purdue University. Dr. Schoonmaker is originally from Wisconsin and earned his B.S. degree from the University of Wisconsin-Madison. Dr. Schoonmaker earned his M.S. and Ph.D. degrees from The Ohio State University in the area of beef cattle nutrition and management. He spent 3 years at Iowa State University working on a post-doctorate focusing on genetics of fatty acid composition of beef and milk. Dr. Schoonmaker has been at Purdue since 2009 and his research centers on influences of nutrition on growth and development, specifically how energy source, protein source, vitamins, minerals, and feed additives impact muscle and fat development in developing, growing, and finishing beef cattle.



Dr. Charles Staples is a Research Foundation Professor in the Department of Animal Sciences at the University of Florida. Charlie earned his Animal Science degrees at New Mexico and Illinois. He was hired by the University of Florida as a dairy cattle nutritionist and has served at the rank of Professor since 1995. He teaches both undergraduate and graduate level nutrition courses. His research areas focus on the effects of dietary nutrients on production and reproductive performance of lactating dairy cows and on improving forage utilization by dairy animals. Based upon his research, Dr. Staples was the recipient of the American Feed Industry Association Award and the Nutrition Professionals Applied Dairy Nutrition Award from the American Dairy Science Association (ADSA) and a University of Florida Research Foundation Professorship. In 2017, Dr. Staples was recognized as a Fellow of ADSA.



Jessica Tekippe is the R&D and technical service manager at Ajinomoto Heartland Inc. She earned her Master of Science degree at Penn State University, and worked in industry in a technical role before joining Ajinomoto in 2013. She specializes in finding new ways to create economic nutrient solutions for the dairy farmer. She believes that the key to ensuring the next generation is finding a way to improve feed efficiencies and create solutions that are biologically and economically successful. In her free time she farms with her husband and chases after her two small children.



Dr. Bill Weiss is a Professor of Dairy Cattle Nutrition in the Department of Animal Sciences at The Ohio State University, located at OARDC in Wooster. His main research areas currently are: factors affecting digestibility in dairy cows and relationships between minerals and vitamins and health of dairy cows. He has authored 121 journal articles and more than 350 popular press and proceedings articles and has given invited talks in 42 states and 25 countries. He was a member of the 2001 Dairy National Research Council (NRC) committee and is currently serving as vice chair of the 2016 Dairy NRC committee. He also served as Interim Chair of the Department of Animal Sciences from 2016-2017.