2013 SEMINAR SERIES

TITLE: Improving fruit and wine: How genomics can help?

SPEAKER: Dr. Sean Myles
Assistant Professor and Canada Research Chair in Agricultural Genetic Diversity
Faculty of Agriculture, Dalhousie University

LOCATION: Room 202 – Crop Science Bldg.

TIME: 2:00 pm

DATE: Wednesday, May 1st

ABSTRACT: We recently celebrated the 200th anniversary of the McIntosh apple. But is such an anniversary a reason for celebration or a reason for despair? While pathogens continue to evolve and exert pressure on McIntosh, it has remained genetically identical for 200 years because we continue to propagate it clonally year after year. Many of our fruit crops, including apples and grapes, are sex-deprived: they have experienced very little sex over the past few thousand years due to the practice of clonal propagation. Besides genetic modification, sex is the only way to generate novel combinations of traits. We need breeders to continue to generate novel genetic combinations that are tasty, high-yielding and require less chemical input to grow. This talk will focus on recent technological developments in genomics and how they can be used to make apple and grape breeding more efficient and cost-effective.
Biography: Dr. Myles is from Fredericton, New Brunswick, Canada where he received his BA at Saint Thomas University. He completed his Master’s degree in Human Biology at Oxford University and his Ph.D. in Human Evolutionary Genetics at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. He turned to plants during his postdoc at Cornell where he worked in Ed Buckler's lab on grape genomics. He also spent time as a postdoc in Carlos Bustamante's lab at Stanford before starting his current position in the Faculty of Agriculture at Dalhousie University as the Canada Research Chair in Agricultural Genetic Diversity in the summer of 2011. His research focuses on elucidating the domestication and breeding histories of apples and grapes and figuring out how to use genomics to more efficiently breed improved fruit that requires less chemical input to grow. More information about Dr. Myles’s research is available at: www.cultivatingdiversity.org