



## **PhD: Investigating the impact of sugar and nitrogen on Maillard Reaction-associated (MR) flavours in sparkling wine.**

### **Project Description**

Location: Brock University, St Catharines, Ontario, Canada.

Supervisors: Dr Belinda Kemp and Professor Gary Pickering, Department of Biological Sciences, Faculty of Maths and Science, Brock University.

We are looking for an enthusiastic student with an interest in sparkling wine flavour for a funded PhD position in Biological Sciences. This four year-studentship will investigate sparkling wine flavours associated with the Maillard Reaction from the interaction of specific compounds involved in their synthesis, proliferation and degeneration. The research will include analysis of aroma by HS-SPME-GC-MS, and amino acids and proteins by capillary electrophoresis, standard wine chemical analysis, sensory evaluation, kinetic modelling and wine making. The candidate will gain skills in these areas, as well as statistical analysis, data interpretation and sparkling wine production within Brock's renowned Cool Climate Oenology and Viticulture Institute.

### **Eligibility and desirable experience:**

- Applicants should hold a Masters degree in Viticulture and Oenology or Food Science. Applicants who have a BSc in these disciplines at the First Class level can enrol for a MSc and upon successful completion of their first year can apply to convert to the PhD stream. A strong academic background in biological sciences is also desirable.
- Experience with advanced laboratory beverage analysis is vital along with an interest in sparkling wine and flavour chemistry.

Funding Details: This PhD is fully funded by the Natural Sciences and Engineering Research Council (NSERC), which covers tuition fees and a student stipend. Funds for conference travel are also available. Applications will be assessed as they arrive.

**How to apply:** In the first instance, send your CV, cover letter, personal statement and contact details for two references to [bkemp@brocku.ca](mailto:bkemp@brocku.ca). If you require any further information, please contact Dr Belinda Kemp at [bkemp@brocku.ca](mailto:bkemp@brocku.ca)