Grapegrowing and winemaking to suit the market will enable Australia’s wine sector to be more competitive in a challenging environment. There is demand for wines that express the unique characteristics of their place of origin but in many cases those characters are not well defined. Many grape components strongly influence wine quality and style, including certain varietal wine aroma compounds that can be traced to specific grape metabolites. However, there is little information linking vineyard management practices and environmental effects on grape metabolism that subsequently affect wine chemistry and aroma/flavour, and ultimately impact on the expression of place.

This project aims to understand the chemical and sensorial basis of regional typicity of Coonawarra Cabernet Sauvignon, a commercially-important red variety, and to determine how pragmatic and cost-effective vineyard and winemaking practices can be used to alter grape and wine characteristics to meet consumer-preferred wine styles, whether in traditional Western or booming Asian markets.

We seek a highly motivated Master of Science candidate with a high level Honours qualification or equivalent in oenology, a food science or chemistry-related discipline (e.g., grape and wine chemistry, flavour chemistry, sensory science, (bio)analytical chemistry). The project will be based at the Waite campus of The University of Adelaide. The candidate will develop skills/techniques in design and conduct of research trials, instrumental methods of chemical analysis, statistical analysis, sensory analysis, and working with research end-users.

References