

Dr Celia Barril

Course Director, Faculty of Science
Senior Lecturer (Chemistry)
National Wine and Grape Industry Centre
Charles Sturt University
Wagga Wagga, NSW 2650
Australia
Phone/fax: +61 2 6933 2551
cbarril@csu.edu.au

Conference presentations

1. **Barril, C.** & Bedgood, D. R. Jr. (28-29 September **2016**). Compulsory work placement for chemistry majors: structure and successes. *Australian Conference on Science and Mathematics Education, Brisbane, Australia*. Poster with Pecha Kucha.
2. Bedgood, D. R. Jr, Guisard, Y., Howitt, J., Prenzler, P., **Barril, C.** & Ryan, D. (28-29 September **2016**). Rasch analysis of exams: a way to document graduate outcomes to employers? *Australian Conference on Science and Mathematics Education, Brisbane, Australia*. Poster.
3. Edwards, E., Smith, J., Walker, A., **Barril, C.**, Boettcher, A., Foster, D., Gouot, J. & Holzappel, B. (26 July **2016**). Targeted manipulation of vine balance: Does vine balance directly affect fruit composition? *16th Australian Wine Industry Technical Conference, Adelaide, Australia*. Oral presentation.
4. Edwards, E., Smith, J., Walker, A., **Barril, C.**, Boettcher, A., Foster, D., Gouot, J. & Holzappel, B. (24-28 July **2016**). Targeted manipulation of vine balance 1. Does vine balance directly affect fruit composition? *16th Australian Wine Industry Technical Conference, Adelaide, Australia*. Poster.
5. Smith, J., Edwards, E., Gouot, J., **Barril, C.**, Walker, A. & Holzappel, B. (24-28 July **2016**). Targeted manipulation of vine balance 2. A whole-vine chamber system for controlling berry sugar accumulation. *16th Australian Wine Industry Technical Conference, Adelaide, Australia*. Poster (**best viticulture poster prize**).
6. Gouot, J., **Barril, C.**, Holzappel, B., Walker, A., Edwards, E. & Smith, J. (24-28 July **2016**). Targeted manipulation of vine balance 3. Effect of carbohydrate supply on berry sugar/anthocyanin accumulation. *16th Australian Wine Industry Technical Conference, Adelaide, Australia*. Poster & 3 minute presentation at the student forum.
7. Rossouw, G., Smith, J., Edwards, E., Deloire, A., **Barril, C.** & Holzappel, B. (24-28 July **2016**). Grapevine root and fruit carbohydrate allocation during maturation: influence of water status and leaf area. *16th Australian Wine Industry Technical Conference, Adelaide, Australia*. Poster & 3 minute presentation at the student forum.
8. Bedgood, D. R. Jr, Guisard, Y., Howitt, J., Prenzler, P., Ryan, D. & **Barril, C.** (31 March-1 April **2016**). Rasch analysis to examine and validate first year chemistry exams: a tool to provide internal and distance students individualised feedback on their subject mastery. *Royal Australian Chemical Institute Chemical Education Symposium, Melbourne, Australia*. Oral presentation.
9. Ghani, M. A., **Barril, C.**, Bedgood, D. R., Prenzler, P. D. (2 October **2015**). Rapid screening of antioxidant activity for the extracts of *Acacia Implexa* bark and leaves using an optimised lipid-based method. *Royal Australian Chemical Institute Natural Products Chemistry Group Annual One-day Symposium, Campbelltown, Australia*. Poster.

10. Grant-Preece, P., **Barril, C.**, Schmidtke, L. M., Scollary, G. R., Clark, A. C. (14-17 July **2015**). Effect of light exposure on model wine solutions containing organic acids and iron in relation to (–)-epicatechin-derived colour development. *IX In Vino Analytica Scientia Symposium, Trentino Alto Adige, Italy*. Poster (**best poster prize**).
11. Ghani, M. A., **Barril, C.**, Bedgood, D. R., Prenzler, P. D. (13-15 December **2014**). Optimising a lipid-based method to measure antioxidant activity in linoleic acid (LA) emulsion. *22nd Royal Australian Chemical Institute Research and Development Topics Conference in Analytical and Environmental Chemistry, Adelaide, Australia*. Oral presentation.
12. Ghani, M. A., **Barril, C.**, Bedgood, D. R., Prenzler, P. D. (3 October **2014**). Understanding oxidation and antioxidant activity in linoleic acid (LA) emulsion through lipid-based antioxidant assay. *Royal Australian Chemical Institute Natural Products Chemistry Group Annual One-day Symposium, Wagga Wagga, Australia*. Oral presentation.
13. Grant-Preece, P., **Barril, C.**, Clark, A. C., Schmidtke, L. M., Scollary, G. R. (10-14 August **2014**). White wine oxidation: The impact of iron(III) and organic acid photoactivity. *Advances in Wine Research, 248th American Chemical Society National Meeting and Exposition, San Francisco, USA*. Oral presentation.
14. Ghani, M. A., **Barril, C.**, Bedgood, D. R., Prenzler, P. D. (6-8 November **2013**). Revisiting the thiobarbituric acid reactive substances (TBARS) assay to measure antioxidant activity in a lipid system. *Australasian Section American Oil Chemists Society Biennial Meeting, Newcastle, Australia*. Poster.
15. Grant-Preece, P., **Barril, C.**, Schmidtke, L. M., Clark, A. C. (13-18 July **2013**). The impact of light, temperature, acidity, sulfur dioxide and caffeic acid on the production of glyoxylic acid in a tartrate-buffered model wine system containing iron. *15th Australian Wine Industry Technical Conference, Sydney, Australia*. Poster.
16. Bouzanquet, Q., **Barril, C.**, Clark, A. C., Dias, D. A., & Scollary, G. R. (3-5 July **2013**). A novel glutathione-hydroxycinnamic acid product generated in oxidative wine conditions. *In Vino Analytica Scientia 2013, Reims, France*. Poster (**best poster prize**).
17. Clark, A. C., **Barril, C.**, Wallington, N., Prenzler, P. D., & Scollary, G. R. (3-5 July **2013**). A kinetic study on the degradation of ascorbic acid in low oxygen conditions. *In Vino Analytica Scientia 2013, Reims, France*. Poster.
18. Bouzanquet, Q., **Barril, C.**, Clark, A. C., Dias, D. A., & Scollary, G. R. (2-6 February **2013**). A novel glutathione-hydroxycinnamic acid product generated in oxidative wine conditions. *24th Australian and New Zealand Society for Mass Spectrometry, Melbourne, Australia*. Poster.
19. Bedgood, D. R. Jr, Agboola, S., **Barril, C.**, Doran, G., Howitt, J., Prenzler, P., Ryan, D. & Zander, A. (15-17 November **2011**). Engaging students – clickers, POGIL, WIMBA, Replay, Captivate, Test Centre and more. *Charles Sturt University Education, Albury, Australia*. Oral presentation.
20. Bedgood, D. R., **Barril, C.**, Doran, G., Howitt, J., Prenzler, P., Ryan, D. & Zander, A. (15-17 November **2011**). Subject evaluation by students – online, or in class? Are Online Subject Evaluation results representative of the entire class? *Charles Sturt University Education, Albury, Australia*. Oral presentation.

21. **Barril, C.**, Clark, A. C. & Scollary, G. R. (21-23 July **2011**). The chemistry of ascorbic acid and sulfur dioxide as an antioxidant system relevant to white wine. *In Vino Analytica Scientia 2011, Graz, Austria*. Oral presentation.
22. **Barril, C.**, Clark, A. C., Prenzler, P. D., Karuso, P. & Scollary, G. R. (2-4 July **2009**). Formation of pigment precursor from (+)-catechin and a degradation product of ascorbic acid in a model wine. *In Vino Analytica Scientia 2009, Angers, France*. Oral presentation.
23. **Barril, C.** (29 July-1 August **2007**). Modelling the white wine oxidation process. *13th Australian Wine Industry Technical Conference, Adelaide*. Invited workshop presentation.
24. **Barril, C.**, Clark, A. C. & Scollary, G. R. (29 July-1 August **2007**). Ascorbic acid and white wine browning. *13th Australian Wine Industry Technical Conference, Adelaide, Australia*. Poster.
25. **Barril, C.**, Clark, A. C. & Scollary, G. R. (22-25 July **2007**). The contribution of ascorbic acid to the formation of coloured pigments from (+)-catechin in model wine systems. *In Vino Analytica Scientia 2007, Melbourne*. Oral presentation.

Industry journal articles

1. Edwards, E. J., Clingeleffer, P. R., Walker, A.R., Smith, J. P., Holzappel, B. P. & **Barril, C.** (**2015**). Understanding the Influence of vine balance on berry composition. *Wine and Viticulture Journal*, 30(4), 43-48.
2. **Barril, C.** & Clark, A. C. (**2009**). In Vino Analytica Scientia: Analytical advances relevant to the Australian Wine Industry. *Australian and New Zealand Grapegrower and Winemaker*, 549, 81-84.
3. Pedretti, F., **Barril, C.**, Clark, A. C. & Scollary, G. R. (**2007**). The colourful world of ascorbic acid. *Australian and New Zealand Grapegrower and Winemaker*, 519, 51-54.
4. **Barril, C.**, Maury, C. & Clark, A. C. (**2006**). White wine antioxidants: ascorbic acid or erythorbic acid. What's the difference? *Australian and New Zealand Grapegrower and Winemaker*, 513, 56-60.