

Latest publications from the UC Davis Department of Viticulture & Enology as of 1/22/2019:

Larry A Lerno, Siriwan Panprivech, Ravi Ponangi, Charles A Brenneman, David E Block, Anita Oberholster. [Impact of cold soak duration on Cabernet Sauvignon fermentation and phenolic composition](#). Journal of the Science of Food and Agriculture 99 (2), 805-815. 2019.

Konrad V Miller, Anita Oberholster, David E Block. [Predicting the Impact of Red Winemaking Practices Using a Reactor Engineering Model](#). American Journal of Enology and Viticulture, ajev. 2018.18076. 2019.

Konrad V Miller, Anita Oberholster, David E Block. [Creation and Validation of a Reactor Engineering Model for Multi-phase Red Wine Fermentations](#). Biotechnology and bioengineering. 2018.

Larry A Lerno, Siriwan Panprivech, Ravi Ponangi, Leanne Hearne, Tom Blair, Anita Oberholster, David E Block. [Effect of Pump-over Conditions on the Extraction of Phenolic Compounds during Cabernet Sauvignon Fermentation](#). American Journal of Enology and Viticulture 69 (3), 295-301. 2018.

Andrea Minio, Mélanie Massonnet, Rosa Figueroa-Balderas, Amanda M Vondras, Barbara Blanco-Ulate, Dario Cantu. [Iso-Seq allows genome-independent transcriptome profiling of grape berry development](#). G3: Genes, Genomes, Genetics. 2019.

Yongfeng S Zhou, Andrea Minio, Melanie Massonnet, Edwin A Solares, Yuanda Lyu, Tengiz Beridze, Dario Cantu, Brandon S Gaut. [Structural variants, clonal propagation, and genome evolution in grapevine \(Vitis vinifera\)](#). bioRxiv, 508119. 2019.

Abraham Morales-Cruz, Rosa Figueroa-Balderas, Jadran F Garcia, Eric Tran, Philippe E Rolshausen, Kendra Baumgartner, Dario Cantu. [Profiling grapevine trunk pathogens in planta: A case for community-targeted DNA metabarcoding](#). BMC Microbiology 18 (214). 2018.

Melanie Massonnet, Abraham Morales-Cruz, Andrea Minio, Rosa Figueroa-Balderas, Daniel P Lawrence, Renaud Travadon, Philippe E Rolshausen, Kendra Baumgartner, Dario Cantu. [Whole-Genome Resequencing and Pan-Transcriptome Reconstruction Highlight the Impact of Genomic Structural Variation on Secondary Metabolite Gene Clusters in the Grapevine Esca Pathogen Phaeoacremonium minimum](#). Frontiers in Microbiology 9 (doi: 10.3389/fmicb.2018.01784). 2018.

Renata Koyama, Sergio Ruffo Roberto, Reginaldo Teodoro De Souza, Wellington Fernando Silva Borges, Mauri Anderson, Andrew Leo Waterhouse, Dario Cantu, Matthew W Fidelibus, Barbara Blanco-Ulate. [Exogenous Abscisic Acid Promotes Anthocyanin Biosynthesis and Increased Expression of Flavonoid Synthesis Genes in Vitis vinifera × Vitis labrusca Table Grapes in a Subtropical Region](#). Frontiers in Plant Science 9, 323. 2018.

Jeannette N Rapicavoli, Barbara Blanco-Ulate, Artur Muszyński, Rosa Figueroa-Balderas, Abraham Morales-Cruz, Parastoo Azadi, Justyna M Dobruchowska, Claudia Castro, Dario Cantu, M Caroline Roper. [Lipopolysaccharide O-antigen delays plant innate immune recognition of Xylella fastidiosa](#). Nature Communications 9 (1), 390. 2018.

Paulo Adriano Zaini, Rafael Nascimento, Hossein Gouran, Dario Cantu, Sandeep Chakraborty, Luiz Ricardo Goulart, Abhaya M Dandekar. [Molecular Profiling of Pierce's Disease Outlines the Response Circuitry of Vitis vinifera to Xylella fastidiosa Infection](#). Frontiers in Plant Science 9, 771. 2018.

Mélanie Massonnet, Abraham Morales-Cruz, Rosa Figueroa-Balderas, Daniel P Lawrence, Kendra Baumgartner, Dario Cantu. [Condition-dependent co-regulation of genomic clusters of virulence factors in the grapevine trunk pathogen Neofusicoccum parvum](#). Molecular plant pathology 19 (1), 21-34. 2018.

Scott Frost, Larry Lerno, Jerry Zweigenbaum, Hildegard Heymann, Susan Ebeler. [Characterization of Red Wine Proanthocyanidins Using a Putative Proanthocyanidin Database, Amide Hydrophilic Interaction Liquid Chromatography \(HILIC\), and Time-of-Flight Mass Spectrometry](#). Molecules 23 (10), 2687. 2018.

Scott C Frost, John W Blackman, Anna K Hjelmeland, Susan E Ebeler, Hildegard Heymann. [Extended Maceration and Cap Management Impacts on the Phenolic, Volatile, and Sensory Profiles of Merlot Wine](#). American Journal of Enology and Viticulture 69 (4), 360-370. 2018.

Scott C Frost, John W Blackman, Susan E Ebeler, Hildegard Heymann. [Analysis of temporal dominance of sensation data using correspondence analysis on Merlot wine with differing maceration and cap management regimes](#). Food Quality and Preference 64, 245-252. 2018.

Ofelia Angulo, L Peter Christensen, Matthew W Fidelibus, Hildegard Heymann, Kimberley Cathline. [Yield, Quality, Sensory Attributes, and Consumer Acceptance of Seedless Muscat Raisin Grapes Dried on the Vine or on Trays](#). Catalyst: Discovery into Practice 2 (2), 35-41. 2018.

Emma Sherman, James F Harbertson, David R Greenwood, Silas G Villas-Bôas, Oliver Fiehn, Hildegard Heymann. [Reference samples guide variable selection for correlation of wine sensory and volatile profiling data](#). Food chemistry 267, 344-354. 2018.

Jennifer T Sela Bowen, Annegret Cantu, Pauline Lestringant, Martina Sokolowsky, Hildegard Heymann. [Wine Sensory Reference Standards to Align Wine Tasters on a Shared Terminology](#). Catalyst: Discovery into Practice 2 (2), 42-49. 2018.

Pauline Lestringant, Julien Delarue, Hildegard Heymann. [Effects of adding extra samples to a product set when using descriptive analysis](#). Food Quality and Preference 66, 127-140. 2018.

Johann Martínez-Lüscher, Luca Brillante, Sahap Kaan Kurtural. [Flavonol profile is a reliable indicator to assess canopy architecture and the exposure of red wine grapes to solar radiation](#). Frontiers in Plant Science 10, 10. 2018.

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Italo F Cuneo, Thorsten Knipfer, Pratiti Mandal, Craig R Brodersen, Andrew J McElrone. [Water uptake can occur through woody portions of roots and facilitates localized embolism repair in grapevine](#). New Phytologist 218 (2), 506-516. 2018.

Felipe H Barrios-Masias, Thorsten Knipfer, M Andrew Walker, Andrew J McElrone. [Differences in hydraulic traits of grapevine rootstocks are not conferred to a common Vitis vinifera scion](#). Functional Plant Biology. 2018.

John H Prueger, Christopher K Parry, William P Kustas, Joseph G Alfieri, Maria M Alsina, Héctor Nieto, Tiffany G Wilson, Lawrence E Hipps, Martha C Anderson, Jerry L Hatfield, Fen Gao, Lynn G McKee, Andrew McElrone, Nurit Agam, Sebastian A Los. [Crop Water Stress Index of an irrigated vineyard in the Central Valley of California](#). Irrigation Science, 1-17. 2018.

Craig R Brodersen, Thorsten Knipfer, Andrew J McElrone. [In vivo visualization of the final stages of xylem vessel refilling in grapevine \(Vitis vinifera\) stems](#). New Phytologist 217 (1), 117-126. 2018.

Federico M Agazzi, Jenny Nelson, Courtney K Tanabe, Carolyn Doyle, Roger B Boulton, Fernando Buscema. [Aging of Malbec wines from Mendoza and California: Evolution of phenolic and elemental composition](#). Food chemistry 269, 103-110. 2018.

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Amber Kerr, Jake Dialesandro, Kerri Steenwerth, Nathan Lopez-Brody, Emile Elias. [Vulnerability of California specialty crops to projected mid-century temperature changes](#). Climatic Change 148 (3), 419-436. 2018

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Andrew L Waterhouse, Mark Shepherd. [The Microbiome Comes to Food and Agriculture](#). Journal of the Science of Food and Agriculture 99 (1), 7-7. 2019.

- Thi H Nguyen, Andrew L Waterhouse. [A Production-Accessible Method: Spectrophotometric Iron Speciation in Wine using Ferrozine and Ethylenediaminetetraacetic Acid](#). Journal of agricultural and food chemistry. 2019.
- Lingjun Ma, Andrew L Waterhouse. [Flavanols react preferentially with quinones through an electron transfer reaction, stimulating rather than preventing wine browning](#). Analytica chimica acta 1039, 162-171. 2018.
- Lingjun Ma, Christoph Bueschl, Rainer Schuhmacher, Andrew L Waterhouse. [Tracing oxidation reaction pathways in wine using 13C isotopolog patterns and a putative compound database](#). Analytica Chimica Acta. 2018.
- Aude A Watrelot, Andrew L Waterhouse. [Oak barrel tannin and toasting temperature: Effects on red wine anthocyanin chemistry](#). LWT 98, 444-450. 2018.
- Aude A Watrelot, Tonya L Kuhl, Andrew L Waterhouse. [Friction forces of saliva and red wine on hydrophobic and hydrophilic surfaces](#). Food Research International. 2018.
- María-Pilar Sáenz-Navajas, Charlie Henschen, Annegret Cantu, Aude A Watrelot, Andrew L Waterhouse. [Understanding microoxygenation: Effect of viable yeasts and sulfur dioxide levels on the sensory properties of a Merlot red wine](#). Food Research International 108, 505-515. 2018.
- Lingjun Ma, Aude Annie Watrelot, Bennett Addison, Andrew L Waterhouse. [Condensed tannin reacts with SO₂ during wine aging, yielding flavan-3-ol sulfonates](#). Journal of agricultural and food chemistry. 2018.
- Aude A Watrelot, Marie-Laure Badet-Murat, Andrew L Waterhouse. [Oak barrel tannin and toasting temperature: Effects on red wine condensed tannin chemistry](#). FOOD SCIENCE AND TECHNOLOGY-ZURICH- 91 (1), 330-338. 2018.