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Ecophysiology and Grape Functional Genomics
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DEGREE

- 1993 Master in Cellular and Molecular Plant Biology at University of Toulouse III (France)
- 1997 PhD in Cellular and Molecular Plant Biology, University of Toulouse (France)
- 2013 Habilitation à Diriger les Recherches in Plant Sciences (French post-doctoral degree allowing its holder to supervise PhD students), University of Bordeaux (France)

SCIENTIFIC CAREER

- 1997-1999 Assistant Professor in Plant Physiology, University of Toulouse III (France)
- 1999-2000 Post-doctoral position in the laboratory of Dr C. Maurel, UMR5004, Montpellier (France)
- 2001-202 Post-doctoral position INRA Lusignan (France)
- Since 2002 Associate Professor in Plant Physiology, University of Bordeaux, UMR 1287, 'Ecophysiology and Grape Functional Genomics'.

RESEARCH AREA

In many fruit species including grapevine, grafting is used to improve scion productivity and quality, and to adapt the plant to environmental conditions. However, the mechanisms underlying the rootstock control of scion development are still poorly understood. The ability of rootstocks to regulate nitrogen (N) and phosphorus (P) uptake and assimilation may contribute to this control. The early (molecular and hormonal) responses, local and systemic, to the change in nitrogen and phosphorus availability are evaluated in different rootstock/scion combinations. In parallel, the evaluation of the root growth of the rootstocks (grafted or un-grafted) grown in different levels of nitrogen nutrition is carried out in different culture systems. The root-shoot signalling is also investigated.

PUBLICATIONS

Ollat N, Peccoux A, Papura D, Esmenjaud D, Marguerit E, Tandonnet JP, Bordenave L, Cookson SJ, Barrieu F, Rossdeutsch L, **Lauvergeat V**, Vivin P, Bert PF, Delrot S, 2015 - Rootstocks as a component of adaptation to environment. Grapevine in a Changing Environment: A Molecular and Ecophysiological Perspective, 68.

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- Hichri I, Barrieu F, Bogs J, Kappel C, Delrot S, **Lauvergeat V***, 2011 - Recent advances in transcriptional regulation of the flavonoid biosynthetic pathway. *Journal of Experimental Botany*, 62, 2465-2483. *corresponding author
- Hichri I, Heppel SC, Pillet J, Léon C, Czemmel S, Delrot S, **Lauvergeat V**, Bogs J, 2010 - The basic helix-loop-helix transcription factor MYC1 regulates flavonoid biosynthesis in grapevine. *Molecular Plant*, 3, 509-523.
- Guillaumie S, Mzid R, Méchin V, Léon C, Hichri I, Destrac-Irvine A, Trossat-Magnin C, Delrot S, **Lauvergeat V***, 2010 - The grape transcription factor WRKY2 influences lignin pathway and xylem development in tobacco. *Plant Molecular Biology*, 72, 215-234. *corresponding author
- Mzid R, Marchive C, Blancard D, Deluc L, Corio-Costet M-F, Drira N, Hamdi S, **Lauvergeat V***, 2007 - Overexpression of VvWRKY2 in tobacco enhances broad resistance to necrotrophic fungal pathogens. *Physiologia Plantarum*, 131, 434-447. *corresponding author
- Marchive C, Mzid R, Deluc L, Barrieu F, Pirrello J, Gauthier A, Corio-Costet M-F, Regad F, Cailleteau B, Hamdi S, **Lauvergeat V***, 2007 - Isolation and characterization of a *Vitis vinifera* transcription factor, VvWRKY1, and its effect on responses to fungal pathogens in transgenic tobacco plants. *Journal of experimental Botany*, 58(8), 1999-2010. *corresponding author
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- Lauvergeat V**, Kennedy K, Feuillet C, McKie JH, Gorrichon L, Baltas M, Boudet AM, Grima-Pettenati J, Douglas KT, 1995. - Site-directed mutagenesis of a serine residue in cinnamyl alcohol dehydrogenase, a plant NADPH-dependant dehydrogenase, affects the specificity for the coenzyme. *Biochemistry*, 34, 12426-12434.
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