

Grégoire Loupit

Work experience

From
Oct.
2019 to
Mar.
2023

PhD student, Grants of French Ministry of Higher Education / UMR EGFV
- Using metabolomic approaches, we aimed to identify early metabolic markers of grafting success by quantifying some primary metabolites, amino acids, and secondary metabolites, especially stilbenes, around the graft interface. Also, we characterized the spatio-temporal accumulation of these compounds during the first days after grafting.
- Using a transcriptomic approach, we identified candidate genes linked to wounding and graft union formation during the first days after grafting.
- Supervision of 2 internships (6 and 3 months)



From
Apr. to
Jul.
2022

Lab visitor / Dept. of Toxicology and Drug Metabolism
STSM grant obtained from COST action INTERGRAPE
MALDI-MS imaging of secondary metabolites in graft interface sections



From
2019 to
2021

Teaching assistant / ISVV, Villenave d'Ornon France
Wine chemistry lab for Diplôme national d'œnologue 1.

From
Jan.
2019 to
Jun.
2019

Master 2 internship / ISVV, MIB/EGFV, Villenave d'Ornon France
Transversal project - Oenology Unit - Ecophysiology and Functional Genomics of the Vine: Study of phenolic compounds involved in graft compatibility using MS and NMR methodologies.

From
2017 to
2018

Internships

SOVEX GRANDCHATEAUX : Wine advice to châteaux in relation to brokers, hail impact damage and mildew pressure due to high humidity.

Observation of trader and salesperson job.

ISVV, MIB : Q-NMR H¹ analysis method for wines: authenticity of sweet wines and comparison of methods.

Creation of a scientific poster.

Petrus : Understanding viticulture practices and grapevine physiology.

Education

From
2017 to
2019

Master 1 & 2 Wine and grapevine sciences / Institut des Sciences de la Vigne et du Vin, Villenave d'Ornon France
Speciality grapevine and vitivincultural environment,
Genetic and omics option, Methods of alternative productions,
Marketing of wine and spirits.
Elected student leader, participation in ISVV councils

From
2011 to
2017

Scientific Bacculaureate¹, Bachelor of Biochemistry² / ¹Camille Jullian high school, ²University of Bordeaux
¹Physics Specialty
²Genetic expression and regulation
²Realisation of a Business Model: Eco Parpaing (2017)



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R⁶ <https://www.researchgate.net/profile/Gregoire-Loupit>

Twitter @LoupitGreg

Calendar Born in 1996

Globe 35 rue Deveaux 33200
Bordeaux

Email loupit.gregoire@gmail.com

Phone +33 6 50 70 68 64

Car Personal vehicle

Driving licence (B)

Computer skills

R for statistical data processing
C2I, Excel, Word, PowerPoint,
Inkscape
MSiReader
MapMan

Laboratory skills

Grafting grapevine
Plant phenotyping
Metabolomics
HPLC-QqQ
MALDI-MS imaging
Transcriptomics
RNA extraction
RNA-Seq analysis
(bioinformatics and biostatistics)

Reviewing experience

Scientia Horticulturae
Plant Physiology and Biochemistry

Languages

French Mother tongue
English B2 level

Interests

Cooking, car mechanics,
œnology, new technologies

Publications in peer-reviewed journals:

- **Loupit, G.**, Prigent, S., Franc, C., de Revel, G., Richard, T., Cookson, S. J., and Valls Fonayet, J. (2020). Polyphenol profiles of just pruned grapevine canes from wild *Vitis* accessions and *Vitis vinifera* cultivars. *Journal of Agricultural and Food Chemistry*, 68(47), 13397–13407. doi: 10.1021/acs.jafc.9b08099
- **Loupit, G.** and Cookson, S.J. (2020). Identifying molecular markers of successful graft union formation and compatibility. *Front. Plant Sci.* 11:610352. doi:10.3389/fpls.2020.610352
- **Loupit, G.**, Valls Fonayet, J., Prigent, S., Prodhomme, D., Spilmont, A.S., Hilbert, G., Franc, C., de Revel, G., Richard, T., Ollat, N., Cookson, S.J. (2022). Identifying early metabolite markers of successful graft union formation in grapevine. *Horticultural Research*, uhab070. doi: 10.1093/hr/uhab070
- Carrere, C., Spilmont, A.-S., **Loupit, G.**, Beutin, P., Stessels, C., Ollat, N., & Cookson, S.-J. (2022). Evaluation of criteria to assist the selection of good quality grafted grapevines prior to their commercialisation. *OENO One*, 56(2), 15–27. doi: 10.20870/oenone.2022.56.2.4792
- **Loupit, G.**, Brocard, L., Ollat, N., Cookson, S. J. (2023). Grafting in plants: recent discoveries and new applications. *Journal of Experimental Botany*. erad061. doi: 10.1093/jxb/erad061.
- **Loupit, G.**, Valls Fonayet, J., Lorensen, M.D.B.B., Franc C., de Revel, G., Janfelt, C., Cookson, S. J. (2023). Tissue-specific stilbene accumulation is an early response to wounding/grafting as revealed by using spatial and temporal metabolomics. *Plant, Cell & Environment*. 1-16. doi: 10.1111/pce.14693.

Book chapters:

- Valls Fonayet, J., **Loupit, G.**, and Richard, T. (2020). MS- and NMR-metabolomic tools for the discrimination of wines: Applications for authenticity. *Advances in Botanical Research, Academic Press*, ISSN 0065-2296, doi: 10.1016/bs.abr.2020.11.003.

Oral communications:

- **Loupit, G.**, Cookson S.J., Valls Fonayet J. Les polyphénols et l'incompatibilité de greffe. *Journée des Doctorants et Post-Doctorants de l'ISVV*, Villenave d'Ornon 12 Novembre 2019.
- **Loupit, G.**, Valls Fonayet J., Cookson S.J. Understanding graft union formation and graft incompatibility in grapevine. *Doctors In Agronomical Sciences, Association of Bordeaux*, Villenave d'Ornon 04 Décembre 2019.
- **Loupit, G.**, Valls Fonayet J., Cookson S.J. Understanding graft union formation and graft incompatibility in grapevine. *Webinar : Plantae Presents Panel - Specialized Metabolites Medicines, Flavors, Defense and More*, January 27, 2021, <https://www.youtube.com/watch?v=Q4gWtcDWofU>
- **Loupit, G.**, Valls Fonayet J., Cookson S.J. Specialized metabolites as indicators of graft incompatibility and their spatio-temporal accumulation at the graft interface of grapevine. *Plant Biology 2021*, July 22, 2021.
- **Loupit, G.**, Valls Fonayet J., Cookson S.J. Understanding stilbene accumulation at the graft interface of grapevine and their potential use for predicting graft incompatibility. *Grapevine physiology 2021*, South Africa, November 02, 2021

Communications displayed:

- **Loupit, G.**, Franc C., de Revel G., Richard T., Cookson S.J., Valls Fonayet J. Stilbene profiles of canes from wild *Vitis* spp. by UHPLC-QqQ. *Oeno-IVAS*, Bordeaux Juin 2019.
- **Loupit, G.**, Gabaston J., Thaillis D., Franc C., Richard T., Cookson S.J., Valls Fonayet J. Composition and antioxidant activities of stilbene cane extracts from different *Vitis* species. *Indian-French Symposium Hyderabad*, Bordeaux Novembre 2019.
- **Loupit, G.**, Lorensen, M., Garcia, V., Franc, C., de Revel, G., Janfelt, C., Valls Fonayet, J., Cookson, S.J. Understanding graft union formation by using metabolomic and transcriptomic approaches during the first days after grafting in grapevine. *TerClim*, July 2022.

Science popularization :

- My thesis in 180 seconds (MT180s). Talence, March 10, 2020. <https://www.youtube.com/watch?v=3DkJfTksWAM&t=82s>
- Interview for Japanese television (NHK). Bordeaux, January 2022.
- Participation in several DECLICS workshops for high school students (Dialogues Entre Chercheurs et Lycéens pour les Intéresser à la Construction des Savoirs). Bordeaux, 2021-2022.