Stéphanie CLUZET
PhD in Plant Sciences
Associate Professor at Bordeaux University
Date of Birth: March 27, 1973

Molecules of Biological Interest (MIB, ex-GESVAB)
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Education

1991	**Bachelor** in Science (Albi, France)
1996	**Master** in Agroresources Sciences (INP-ENSA Toulouse, France)
2001	**Ph. D** in Plant Science (IE-BPV University of Lausanne, Switzerland) *Role of remorine in plant defense*
2016	**HDR** (« accreditation to supervise research ») (University of Bordeaux, France) *Plants and their defense compounds: Interests in Plant and Human Health*

Professional Experience

1996-1997	**Technician** - ENSAT (Agronomic School, Toulouse, France) in collaboration with AGPM (Association of Maize Producers, Pau, France) *Elaboration of an early diagnostic protocol of head smut of maize*
1999-2001	**Assistant professor** - University of Lausanne *Practical courses of plant physiology and biology, molecular biology and biochemistry*
2002-2005	**Post-Doctoral position** - SECMA Biotechnologies Marines (Pontrieux, France) and UMR 5546 UPS-CNRS (Toulouse, France) *Expression of genes related to defense or to primary metabolism on agronomic plants*
2005	**Assistant professor** – University of Toulouse, France *Practical courses of plant physiology*
2005-	**Associate professor** – University of Bordeaux, France Research (MIB, UR Œnology EA4577): *Grapevine polyphenols and their biological activity in plant and human health* Courses: *Biotechnology, Plant Science and Botany*

The MIB mainly developed its research activities on grapevine polyphenols. Its research is organized in two complementary axes: 1) Phytochemistry and 2) Biological activities of polyphenols. The "Phytochemistry" axis characterizes and analyzes grapevine and wine compounds by developing new analytical techniques. The goal of the "Biological activities » axis is to study the anti-inflammatory and anti-oxydant activities of polyphenols, as well as the molecular interactions polyphenols/proteins. Furthermore, this second axis is implicated in the development of environmentally friendly viticulture techniques. For that, two strategies are considered: plant natural defense stimulation (via elicitor use) or plant direct protection (via anti-microbial compound use, such as polyphenols).

The six major publications

1- Belhadj A., Télef N., **Cluzet S.,** Bouscaut J., Corio-Costet M.F., Mérillon J.M. (2008) Ethephon elicits protection against *Erysiphe necator* in grapevine. *J. Agric. Food Chem.* **56**: 5781-5787.

2- Faurie B., **Cluzet S.,** Mérillon J.M. (2009) Implication of signaling pathways involving calcium, phosphorylation and active oxygen species in methyl jasmonate-induced defense responses in grapevine cell cultures. *J. Plant Physiol.* **166**: 1863-1877.

3- Lambert C., Bisson J., Waffo-Téguo P., Papastamoulis Y., Richard T., Corio-Costet M.F., Mérillon J.M., **Cluzet S.** (2012) Phenolics and their antifungal role in grapevine wood decay: Focus on the Botryosphaeriaceae family. *J. Agric. Food Chem*. **60**(48): 11859-11868.

4- Lambert C., Li Kim Khiook I., Lucas S., Télef N., Mérillon J.M., **Cluzet S.** (2013) A faster and a stronger defense response: one of the key elements in grapevine explaining its lower level of susceptibility to Esca? *Phytopathol.* **103**(10): 1028-1034.

5- Lambert C., Richard T., Renouf E., Bisson J., Waffo-Teguo P., Bordenave L., Ollat N., Mérillon J.M., **Cluzet S.** (2013) Comparative analyses of stilbenoids in canes of major *Vitis vinifera* L. cultivars. *J. Agric. Food Chem.* **61**(47): 11392-11399.

6- Mokrani A., Krisa S., **Cluzet S.,** Da Costa G., Temsamani H., Renouf E., Mérillon J.M., Madani K., Mesnil M., Monvoisin A., Richard T. (2016) Phenolic contents and bioactive potential of peach fruit extracts. *Food Chem.* **202**: 212-220.

Patents

2004 — Co-inventor of the patent US 7820176 B2 (Assignee: Compagnie Financière et de Participations Roullier (Saint-Malo, France)
Ulvans as activators of plant defense and resistance reactions against biotic or abiotic stresses

2005 — Co-inventor of the patent US 20080127695 A1 (Assignee: Compagnie Financière et de Participations Roullier (Saint-Malo, France)
Use of ulvans as elicitors of mechanisms for nitrogen absorption and protein synthesis