

Andrea Schubert

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Dept. of Agricultural, Forestry and Food Sciences, University of Turin, Italy

✿✿✿✿✿ Education

- 1979 Master (Laurea) Degree in Agriculture, University of Turin , full marks *cum laude*
- 1981 Specialization Diploma in Viticulture and Enology, University of Turin

✿✿✿✿✿ Academic appointments

- 1984 - 1998 Researcher at the University of Turin
- 1998 - 2006 Associate Professor in Plant Physiology, University of Turin
- Since 2006 Full Professor in Plant Physiology at the University of Turin
- 2002 - 2008 Direction of the Bachelor Course in Viticulture and Enology, University of Turin
- 2009 Direction of the Master Course in Plant Biotechnology, University of Turin
- since 2013 President of the Evaluation Board of the University of Turin
- since 2015 Elected Vice-President of the Italian Society of Plant Biology

✿✿✿✿✿ Teaching

- Plant Physiology and Synthetic Biology, Degree Course of Biotechnology
- Plant molecular physiology, Master Course in Plant Biotechnology

✿✿✿✿✿ Research

- 1982 visiting scientist at Rothamsted Experimental Station (UK)
- 1988 -90 visiting scientist at the Botany Department, University of Basel (CH)
- 1999 visiting scientist at the Julius-Maximilians-Universität Würzburg (D)

Research group leader (www.PlantStressLab.unito.it), PhD supervisor (12), project leader in EU (H2020 SFS-2016 TOMRES) and national research projects (5), and in in bi-national collaboration projects with Germany and Spain (2), direction of contracts with private companies and public bodies (7), participation in two academic spin-off companies (Grape srl and Strigolab srl)

Convener, MACROWINE Turin 2010 and appointed Convener, FESPB Euro Plant Biology Congress, Turin 2020

Member of the Italian Society of Plant Biology

✿✿✿✿✿ Research focus

Mobile signals (miRNAs, strigolactones, ABA) in plants upon stress

Plant responses to combined abiotic and biotic stress

Biosynthesis of flavonoids in fruits

***** Recent research projects

Traceability of Piedmont grape varieties through the analysis of aromatic compounds (CRC Foundation 2009-2011)

Elaboration of an agro-meteorological model to estimate the main quality parameters of grape must - POLIFEMO (Regione Piemonte 2010-2013)

Molecular control of flavonoid modifications in grapevine (AIT/DAAD Vigoni 2011-2013)

Signaling roles of strigolactones at the interface between plants, microorganisms, and a changing environment - SLEPS (UniTO-CSP 2013-2016)

An integrated approach to the control of FD disease in grapevine - INTEFLAVI (CRC Foundation 2014-2017)

A novel and integrated approach to increase multiple and combined stress tolerance in plants using tomato as a model – TOMRES (EC H2020 SFS-2 2017-2020)

***** Scientific impact

ISI-indexed publications 68 (at 31 March, 2017)

total cites 2035

total cites without self-citation 1928

h-index 26

***** Recent publications

Huguenev P, Provenzano S, Verriès C, Ferrandino A, Meudec E, Batelli G, Merdinoglu D, Cheynier V, Schubert A and Ageorges A (2009) A novel cation-dependent O-methyltransferase from *Vitis vinifera* L involved in anthocyanin methylation in grapevine - *Plant Physiol* 150:2057-2070

Carra A, Mica E, Gambino G, Pindo M, Moser C, Pé ME, Schubert A (2009) Cloning and characterization of small non-coding RNAs from grape - *Plant J* 59:750:764

Lovisol C, Perrone I, Carra A, Ferrandino A, Flexas J, Medrano H, Schubert A (2010) Drought-induced changes in development and function of grapevine (*Vitis* spp) organs and in their hydraulic and non-hydraulic interactions at the whole-plant level: a physiological and molecular update - *Funct Plant Biol*, 37:98-116

Giribaldi M, Gény L, Delrot S, Schubert A (2010) Proteomic analysis of the effects of ABA treatments on ripening *Vitis vinifera* berries - *J Exp Bot* 61:2447-2458

Ferrandino A, Carra A, Rolle L, Schneider A, Schubert A (2012) Profiling of hydroxycinnamoyl tartrates and acylated anthocyanins in the skin of 34 *Vitis vinifera* genotypes - *J Agric Food Chem* 68:4931-4945

Perrone I, Pagliarani C, Lovisol C, Chitarra W, Roman F, Schubert A (2012) Recovery from water stress affects grape petiole transcriptome - *Planta* 285:1383-1396

Perrone I, Gambino G, Chitarra W, Vitali M, Pagliarani C, Riccomagno N, Balestrini R, Kaldenhoff R, Uehlein N, Gribaudo I, Schubert A, Lovisol C (2012) The grapevine root-specific aquaporin VvPIP2;4N controls root hydraulic conductance and leaf gas exchange under well-watered conditions but not under water stress - *Plant Physiol* 160:965-977

Ferrandino A, Carlomagno A, Baldassarre S, Schubert A (2012) Varietal and pre-fermentative volatiles during ripening of *V. vinifera* cv Nebbiolo berries from three growing areas - *Food Chem* 135:2340-2349

- Perrone I, Gambino G, Chitarra W, Vitali M, Pagliarani C, Riccomagno N, Balestrini R, Kaldenhoff R, Uehlein N, Gribaudo I, Schubert A, Lovisolo C (2012) The grapevine root-specific aquaporin VvPIP2;4N controls root hydraulic conductance and leaf gas exchange under well-watered conditions but not under water stress - *Plant Physiol* 160:965-977
- Liu J, Novero M, Charnikova T, Ferrandino A, Schubert A, Ruyter-Spyra C, Bonfante P, Lovisolo C, Bouwmeester HC, Cardinale F (2013) CAROTENOID CLEAVAGE DIOXYGENASE 7 modulates plant growth, reproduction, senescence and determinate nodulation in the model legume *Lotus japonicus* - *J Exp Bot* 64:1967-1981
- Navarro-Rodenas A, Barzana G, Nicolàs E, Carra A, Schubert A, Morte A (2013) Expression analysis of aquaporins from desert truffle mycorrhizal symbiosis reveals a fine-tuned regulation under drought - *Mol Plant Microbe Interactions* 26:1066-1078
- Chitarra V, Balestrini R, Vitali M, Pagliarani C, Perrone I, Schubert A, Lovisolo C (2014) Gene expression in vessel-associated cells upon xylem embolism repair in *Vitis vinifera* L petioles - *Planta* 239:887-899
- Margaria P, Ferrandino A, Caciagli P, Kedrina O, Schubert A, Palmano S (2014) Time course metabolic and transcript analysis of the flavonoid pathway in Nebbiolo and Barbera grapevines (*Vitis vinifera* L) infected by *Flavescence dorée* phytoplasma and recovered - *Plant Cell Environm*, 37:2183-2200
- Provenzano S, Spelt C, Hosokawa S, Nakamura N, Brugliera F, Demelis L, Geerke DP, Schubert A, Tanka Y, Quattrocchio F, Koes R (2014) Genetic control and evolution of anthocyanin methylation - *Plant Physiol*, 165:962-977
- Liu J, He H, Vitali M, Charnikowa T, Visentin I, Haider I, Schubert A, Ruyter-Spira C, Bouwmeester H, Lovisolo C, Cardinale F (2015) Osmotic stress affects strigolactone biosynthesis in *Lotus japonicus* roots as a requisite to stress-induced ABA accumulation and independently of P availability. *Planta*, 241:1435:1451
- Giordano D, Provenzano S, Ferrandino A, Vitali M, Pagliarani C, Roman F, Cardinale F, Castellarin SD, Schubert A (2016) Characterization of a multifunctional caffeoyl-CoA methyltransferase activated in grape berries upon drought stress. *Plant Physiol Biochem* 101:23-32
- Li Y, Provenzano S, Bliet M, Spelt C, Appelhagen I, Machado L, Verweij W, Schubert A, Sagasser M, Seidel T, Weisshaar B, Koes R, Quattrocchio F (2016) Evolution of tonoplast P-ATPase transporters involved in vacuolar acidification. *New Phytol*. 211:1092-1107
- Chitarra W, Pagliarani C, Maserti B, Lumini E, Siciliano I, Cascone P, Schubert A, Gambino G, Balestrini R, Guerrieri E (2016) Insights on the impact of arbuscular mycorrhizal symbiosis on tomato tolerance to water stress. *Plant Physiol*. 171: 1009-1023.
- Visentin I, Vitali M, Ferrero M, Zhang Y, Ruyter-Spira C, Novak O, Strmad M, Lovisolo C, Schubert A, Cardinale F (2016) Low levels of strigolactones in roots as a component of the systemic signal of drought stress in tomato. *New Phytol* 212:954:963
- Pagliarani C, Vitali M, Ferrero M, Vitulo N, Incarbone M, Lovisolo C, Valle G, Schubert A (2017) The accumulation of miRNAs differentially modulated by drought stress is affected by grafting in grapevine. *Plant Physiol*. 173: 2180-2195.