

## Research articles SCI 2019 (3)

**NEW!!** Ancín A, Fernández-San Millán A, Larraya L, **Morales F**, Veramendi J, Aranjuelo I, Farrán I (2019) Thioredoxin m overexpression in tobacco chloroplasts inhibits STN7 kinase and alters photosynthetic performance. **J Exp Bot**, accepted.

**NEW!!** Müller B, Kovács K, Diep Pham H, Kavak Y, Pechoušek J, Machala L, Zbořil R, Szenthe K, **Abadía J**, Fodor F, Klencsár Z, Solti A (2019) Iron uptake machinery of chloroplasts utilise ferric-citrate but not iron-nicotianamine complexes in *Brassica napus*. **Planta**, accepted for publication (doi: [10.1007/s00425-018-3037-0](https://doi.org/10.1007/s00425-018-3037-0))

**NEW!!** **Castillo-González J**, Ojeda-Barrios D, Hernández-Rodríguez A, **Abadía J**, Sanchez E, Parra-Quezada R, Valles-Aragon MC, Sida-Arreola JP (2019) Zinc nutritional status of pecan trees influences physiological and nutritional indicators, the metabolism of oxidative stress, and yield and fruit quality. **Not Bot Horti Agrobo** 47, in press (doi: [10.15835/nbha47210389](https://doi.org/10.15835/nbha47210389))

## Research articles SCI 2018 (12)

Amani A, **Vázquez S**, **Morales F**, Chaari A, **El-Jendoubi H**, **Abadía A**, Larbi A (2018) Prolonged artificial shade affects morphological, anatomical, biochemical and ecophysiological behavior of young olive trees (cv. Arbosana). **Sci Hortic** 241, 275-284 (doi: [10.1016/j.scienta.2018.06.089](https://doi.org/10.1016/j.scienta.2018.06.089))

Arrizabalaga M, **Morales F**, Oyarzun M, Delrot S, Gomès E, Irigoyen JJ, Hilbert G, Pascual I (2018) Tempranillo clones differ in the response of berry sugar and anthocyanin accumulation to elevated temperature. **Plant Sci** 267, 74-83 (doi: [10.1016/j.plantsci.2017.11.009](https://doi.org/10.1016/j.plantsci.2017.11.009))

Ceballos-Laita L, **Gutierrez-Carbonell E**, Imai H, **Abadía A**, Uemura M, **Abadía J**, **López-Millán A-F** (2018) Effects of manganese toxicity on the protein profile of tomato (*Solanum lycopersicum*) roots as revealed by two complementary proteomic approaches, two-dimensional electrophoresis and shotgun analysis. **J Proteomics** 185, 51-63 (doi: [10.1016/j.jprot.2018.06.016](https://doi.org/10.1016/j.jprot.2018.06.016))

**Ceballos-Laita L**, **Gutierrez-Carbonell E**, Takahashi D, **Abadía A**, Uemura M, **Abadía J**, **López-Millán A-F** (2018) Effects of Fe and Mn deficiencies on the protein profiles of tomato (*Solanum lycopersicum*) xylem sap as revealed by shotgun analyses. **J Proteomics** 170, 117-129 (doi: [10.1016/j.jprot.2017.08.018](https://doi.org/10.1016/j.jprot.2017.08.018)). **Data in Brief** 17, 512-516 (doi: [10.1016/j.dib.2018.01.034](https://doi.org/10.1016/j.dib.2018.01.034))

Díaz-Benito P, Banakar R, Rodríguez-Menéndez SM, Capell T, Pereiro R, Christou P, **Abadía J**, Fernández B, **Álvarez-Fernández A** (2018) Distribution of iron and zinc between the embryo and endosperm of rice (*Oryza sativa* L.) seeds in contrasting nicotianamine/2'-deoxymugineic acid scenarios. **Front Plant Sci** 9, 1190 (doi: [10.3389/fpls.2018.01190](https://doi.org/10.3389/fpls.2018.01190))

**Davarpanah S**, Tehranifar A, **Abadía J**, Val J, Davarynejad G, Aran M, Khorassani R (2018) Foliar calcium fertilization reduces fruit cracking in pomegranate (*Punica granatum* cv. Ardestani). **Sci Hortic** 230, 86-91 (doi: [10.1016/j.scienta.2017.11.023](https://doi.org/10.1016/j.scienta.2017.11.023))



**Hosseini MS**, Zahedi SM, **Abadía J**, Karimi M (2018) Effects of postharvest treatments with chitosan and putrescine to maintain quality and extend shelf-life of two banana cultivars. **Food Sci Nutr** 6, 1328–1337 (doi: [10.1002/fsn3.662](https://doi.org/10.1002/fsn3.662))

**NEW!! Hosseini MS**, Samsampour D, Ebrahimi M, **Abadía J**, Khanahmadi M (2018) Effect of drought stress on growth parameters, osmolyte contents, antioxidant enzymes and glycyrrhizin synthesis in licorice (*Glycyrrhiza glabra* L.) grown in the field. **Phytochemistry**, 156, 124-134 (doi: [10.1016/j.phytochem.2018.08.018](https://doi.org/10.1016/j.phytochem.2018.08.018))

Kizildeniz T, JJ Irigoyen, I Pascual, **F Morales** (2018) Simulating the impact of climate change (elevated CO<sub>2</sub> and temperature, and water deficit) on the growth of red and white Tempranillo grapevine in three consecutive growing seasons (2013-2015). **Agric Water Manag** 202, 220-230 (doi: [10.1016/j.agwat.2018.02.006](https://doi.org/10.1016/j.agwat.2018.02.006))

Kizildeniz T, Pascual I, Irigoyen JJ, **Morales F** (2018) Using fruit-bearing cuttings of grapevine and temperature gradient greenhouses to evaluate effects of climate change (elevated CO<sub>2</sub> and temperature, and water deficit) on the cv. red and white Tempranillo. Yield and must quality in three consecutive growing seasons (2013-2015). **Agric Water Manag** 202, 299-310 (doi: [10.1016/j.agwat.2017.12.001](https://doi.org/10.1016/j.agwat.2017.12.001))

Lefèvre F, Fourmeau J, Baijot A, Cornet T, **Abadía J**, **Álvarez-Fernández A**, Boutry M (2018) A *Nicotiana tabacum* ABC transporter secretes O-methylated coumarins in response to iron deficiency. **J Exp Bot** 18, 4419–4431 (doi: [10.1093/jxb/ery221](https://doi.org/10.1093/jxb/ery221))

**NEW!!** Salazar-Parra C, Aranjuelo I, Pascual I, Aguirreolea J, Sánchez-Díaz M, Irigoyen JJ, Araus JL, **Morales F** (2018) Is vegetative area, photosynthesis or grape C uploading involved in the climate change-related grape sugar/anthocyanin decoupling in Tempranillo? **Photosynth Res**, accepted (doi: [10.1007/s11120-018-0552-6](https://doi.org/10.1007/s11120-018-0552-6))

## Dissemination papers 2018 (1)

**Davarpanah S**, Tehranifar A, Davarynejad G, **Abadía J**, R. Khorasani R (2018) Effect of humic acid on some physical and chemical characteristics of pomegranate (*Punica granatum* cv. Ardestani). **Plant Production Technology** 10, 69-81 (doi: [10.22084/ppt.2018.9285.1525](https://doi.org/10.22084/ppt.2018.9285.1525)) (*in farsi*)

## Book chapters 2018 (1)

**Morales F**, Pavlovic A, **Abadía A**, **Abadía J** (2018) Photosynthesis in Poor Nutrient Soils, in Compacted Soils, and under Drought. *In*: Adams III W, Terashima I (eds) The Leaf: A Platform for Performing Photosynthesis. Advances in Photosynthesis and Respiration (Including Bioenergy and Related Processes), vol 44, pp 371-399. Springer, Cham [10.1007/978-3-319-93594-2\\_13](https://doi.org/10.1007/978-3-319-93594-2_13))



## Research articles SCI 2017 (6)

Banakar R, **Álvarez-Fernández A**, **Abadía J**, Capell T, Christou P (2017) A heterologous Fe (III) phytosiderophore transporter expressed in rice increases Fe uptake, translocation and seed loading but excludes heavy metals by selective Fe transport. **Plant Biotechnol J** 15, 423–432 (doi: [10.1111/pbi.12637](https://doi.org/10.1111/pbi.12637)).

Banakar R, **Álvarez-Fernández A**, **Díaz-Benito P**, **Abadía J**, Capell T, Christou P (2017) Phytosiderophores determine thresholds for iron and zinc accumulation in biofortified rice endosperm while inhibiting the accumulation of cadmium. **J Exp Bot** 68, 4983–4995 (doi: [10.1093/jxb/erx304](https://doi.org/10.1093/jxb/erx304)).

Ben Abdallah H, Mai H-G, **Álvarez-Fernández A**, **Abadía J**, Bauer P (2017) Natural variation reveals contrasting abilities to cope with alkaline and saline soil among different *Medicago truncatula* genotypes. **Plant Soil** 418, 45–60 (doi: [10.1007/s11104-017-3379-6](https://doi.org/10.1007/s11104-017-3379-6)).

**Davarpanah S**, Tehranifar A, Davarynejad G, Aran M, **Abadía J**, Khorasani R (2017) Effects of foliar nitrogen fertilizers on the physical and chemical properties of pomegranate (*Punica granatum* cv. Ardestani) fruits. **Hortscience** 52, 288–294 (doi: [10.21273/HORTSCI11248-16](https://doi.org/10.21273/HORTSCI11248-16)).

Leibar U, Pascual I, **Morales M**, Aizpurua A, Unamunzaga O (2017) Grapevine nutritional status and K concentration of must under future expected climatic conditions texturally different soils. **J Soil Sci Plant Nutr** 17, 385–397 (doi: [10.4067/S0718-95162017005000028](https://doi.org/10.4067/S0718-95162017005000028)).

Leibar U, Pascual I, **Morales F**, Aizpurua A, Unamunzaga O (2017) Grape yield and quality responses to simulated year 2100 expected climatic conditions under different soil textures. **J Sci Food Agric** 97, 2633–2640 (doi: [10.1002/jsfa.8086](https://doi.org/10.1002/jsfa.8086)).

## Dissemination papers 2017 (1)

Torres N, Goicoechea N, **Morales F**, Antolín MC (2017) Influencia de la inoculación micorrícica sobre el contenido fenólico de la vid (cv. Tempranillo) en condiciones de temperatura elevada. **Grandes cultivos** Febrero 2017, 30–33.

## Research articles SCI 2016 (13)

**Sisó-Terraza P**, **Luis-Villarroya A**, Fourcroy P, Briat J-F, **Abadía A**, Gaymard F, **Abadía J**, **Álvarez-Fernández A** (2016) Accumulation and secretion of coumarinolignans and other coumarins by *Arabidopsis thaliana* roots in response to iron deficiency at high pH. **Front Plant Sci** 7, 1711 (doi: [10.3389/fpls.2016.01711](https://doi.org/10.3389/fpls.2016.01711)).

Solti A, Kovács K, Muller B, Vázquez S, Tóth B, **Abadía J**, Fodor F (2016) Does a voltage-sensitive outer envelope transport mechanism contribute to the chloroplast iron uptake? **Planta**, 6, 1303–1313 (doi: [10.1007/s00425-016-2586-3](https://doi.org/10.1007/s00425-016-2586-3)).

**Gutierrez-Carbonell E**, Takahashi D, Lüthje S, González-Reyes JA, Contreras-Moreira B, Uemura M, **Abadía J**, **López-Millán AF** (2016) A shotgun proteomic approach reveals that Fe deficiency causes marked changes in the protein profiles of plasma membrane and detergent resistant microdomain preparations from *Beta vulgaris* roots. **J Proteom Res**, 15, 2510–2524 (doi: [10.1021/acs.jproteome.6b00026](https://doi.org/10.1021/acs.jproteome.6b00026)).



**Davarpanah S**, Davarynejad G, **Abadia J**, Khorasani R (2016) Effects of foliar applications of zinc and boron nano-fertilisers on pomegranate (*Punica granatum* cv. Ardestani) fruit yield and quality. **Sci Hortic** 210, 57-64 (doi: [10.1016/j.scienta.2016.07.003](https://doi.org/10.1016/j.scienta.2016.07.003)).

**Rios JJ, Carrasco-Gil S, Abadía A, Abadía J** (2016) Using Perls staining to trace the iron uptake pathway in leaves of a Prunus rootstock treated with iron foliar fertilizers. **Front Plant Sci** 7, 893 (doi: [10.3389/fpls.2016.00893](https://doi.org/10.3389/fpls.2016.00893)).

Martínez-Lüscher J, Kizildeniz T, Vučetić V, Dai Z, Luedeling E, van Leeuwen C, Gomès E, Pascual I, Irigoyen JJ, **Morales F**, Delrot S (2016) Sensitivity of grapevine phenology to water availability, temperature and CO<sub>2</sub> concentration. **Front Environ Sci** 4, 48 (doi: [10.3389/fenvs.2016.00048](https://doi.org/10.3389/fenvs.2016.00048)).

**Rodríguez-Celma J, Ceballos-Laita L**, Grusak M, **Abadía J, López-Millán AF** (2016) Plant fluid proteomics: delving into the xylem sap, phloem sap and apoplastic fluid proteomes. **BBA Proteins Proteom** 1864, 991–1002 (doi: [10.1016/j.bbapap.2016.03.014](https://doi.org/10.1016/j.bbapap.2016.03.014)).

N Torres, N Goicoechea, **F Morales**, MC Antolín (2016) Berry quality and antioxidant properties in *Vitis vinifera* L. cv. Tempranillo as affected by clonal variability, mycorrhizal inoculation and temperature. **Crop Pasture Sci** 67, 961–977 (doi: [10.1071/CP16038](https://doi.org/10.1071/CP16038)).

**F Morales**, MC Antolín, I Aranjuelo, N Goicoechea, I Pascual (2016) From vineyards to controlled environments in grapevine research: investigating responses to climate change scenarios using fruit-bearing cuttings. **Theor Exp Plant Physiol** 28, 171-191 (doi: [10.1007/s40626-016-0065-7](https://doi.org/10.1007/s40626-016-0065-7)).

**Rodríguez-Celma J, Lattanzio G, Villarroya D, Gutierrez-Carbonell E, Ceballos-Laita L**, Rencoret J, Gutiérrez A, del Río JC, Grusak MA, **Abadía A, Abadía J, López-Millán AF** (2016) Effects of Fe deficiency on the protein profiles and lignin composition of stem tissues from *Medicago truncatula* in absence or presence of calcium carbonate. **J Proteomics** 140, 1-12 (doi: [10.1016/j.jprot.2016.03.017](https://doi.org/10.1016/j.jprot.2016.03.017)).

**López-Millán AF**, Duy D, Philippar K (2016) Chloroplast iron transport proteins – function and impact on plant physiology. **Front Plant Sci** 7, 178 (doi: [10.3389/fpls.2016.00178](https://doi.org/10.3389/fpls.2016.00178)).

**Carrasco-Gil S, Rios JJ, Álvarez-Fernández A, Abadía A, García-Mina JM, Abadía J** (2016) Effects of individual and combined metal foliar fertilization on iron- and manganese-deficient *Solanum lycopersicum* plants. **Plant Soil**, accepted (doi: [10.1007/s11104-015-2759-z](https://doi.org/10.1007/s11104-015-2759-z)). **Erratum Plant Soil** 402, 409-410 (doi: [10.1007/s11104-016-2806-4](https://doi.org/10.1007/s11104-016-2806-4)).

**Sisó-Terraza P, Ríos JJ, Abadía J, Abadía A, Álvarez-Fernández A** (2016) Flavins secreted by roots of iron deficient *Beta vulgaris* enable mining of ferric oxide via reductive mechanisms. **New Phytol**, in press (doi: [10.1111/nph.13633](https://doi.org/10.1111/nph.13633)).

## Research articles SCI 2015 (9)

**NEW!!** Kizildeniz T, Mekni I, Santesteban H, Pascual I, **Morales F**, Irigoyen JJ (2015) Effects of climate change including elevated CO<sub>2</sub> concentration, temperature and water deficit on growth, water status, and yield quality of grapevine (*Vitis vinifera* L.) cultivars. **Agric Water Manag** 159: 155-164 (doi: [10.1016/j.agwat.2015.06.015](https://doi.org/10.1016/j.agwat.2015.06.015)).



Martínez-Lüscher J, **Morales F**, M Sánchez-Díaz, S Delrot, J Aguirreolea, E Gomés, I Pascual (2015) Climate change conditions (elevated CO<sub>2</sub> and temperature) and UV-B radiation affect grapevine (*Vitis vinifera* cv. Tempranillo) leaf carbon assimilation, altering fruit ripening rates. **Plant Sci** 236: 168-176 (doi: [10.1016/j.plantsci.2015.04.001](https://doi.org/10.1016/j.plantsci.2015.04.001)).

U Leibar, A Aizpurua, O Unamunzaga, I Pascual, **F Morales** (2015) How will climate change influence grapevine cv. Tempranillo photosynthesis under different soil textures? **Photosynth Res** 129, 199-215 (doi: [10.1007/s11120-015-0120-2](https://doi.org/10.1007/s11120-015-0120-2)).

Martínez-Lüscher J, **Morales F**, Delrot S, Sánchez-Díaz M, Gomés E, Aguirreolea J, Pascual I (2015) Characterization of the adaptive response of grapevine (cv Tempranillo) to UV-B radiation under water deficit conditions. **Plant Sci** 232, 13-22 (doi: [10.1016/j.plantsci.2014.12.013](https://doi.org/10.1016/j.plantsci.2014.12.013)).

Larbi A, **Vázquez S**, **El-Jendoubi H**, Msallem M, **Abadía J**, **Abadía A**, **Morales F** (2015) Canopy light heterogeneity drives leaf anatomical, eco-physiological and photosynthetic changes in olive trees grown in a high-density plantation. **Photosynth Res**, in press (doi: [10.1007/s11120-014-0052-2](https://doi.org/10.1007/s11120-014-0052-2)).

Salazar-Parra C, Aranjuelo I, Pascual I, Erice G, Sanz-Sáez A, Aguirreolea J, Sánchez-Díaz M, Irigoyen JJ, Araus JL, **Morales F** (2015) Carbon balance, partitioning and photosynthetic acclimation in fruit-bearing grapevine (*Vitis vinifera* L. cv. Tempranillo) grown under simulated climate change (elevated CO<sub>2</sub>, elevated temperature and moderate drought) scenarios in temperature gradient greenhouses. **J Plant Physiol** 174, 97-109 (doi: [10.1016/j.jplph.2014.10.009](https://doi.org/10.1016/j.jplph.2014.10.009)).

Bernal M, Verdaguer D, Barbosa J, **Abadía A**, Llusia J, Peñuelas J, Nuñez-Olivera E, Llorens L. (2015) Effects of enhanced UV radiation and water availability on performance, biomass production and photoprotective mechanisms of *Laurus nobilis* seedlings. **Environ Exp Bot** 109, 264-275 (doi: [10.1016/j.envexpbot.2014.06.016](https://doi.org/10.1016/j.envexpbot.2014.06.016)).

**Ceballos-Laita L**, **Gutierrez-Carbonell E**, **Lattanzio G**, **Vázquez S**, Contreras-Moreira B, **Abadía A**, **Abadía J**, **López-Millán AF** (2015) Protein profile of *Beta vulgaris* leaf apoplastic fluid and changes induced by Fe deficiency and Fe resupply. **Front Plant Sci** 6, 145 (doi: [10.3389/fpls.2015.00145](https://doi.org/10.3389/fpls.2015.00145)).

## Dissemination papers 2015 (1)

**Carrasco-Gil S**, **El-Jendoubi H**, **Ríos JJ**, Fernández B, **Abadía J**, **Abadía A** (2015) Fertilización foliar de Fe, un mismo objetivo tanto en estudios de campo como en laboratorio. **Vida Rural** 391, 46-54.

