

## MÓNICA VALDENEGRO ESPINOZA

***Escuela de Agronomía, Pontificia Universidad Católica de Valparaíso,  
Calle San Francisco s/n, La Palma, Quillota, Chile***

### I. PUBLICACIONES (2015 – presente)

#### ***Publicaciones en revistas indexadas (ISI)***

1. Nuñez, H., Jaques, A., Belmonte, K., Elitin, J., **Valdenegro, M.**, Ramírez, C., & Córdova, A. (2024). Development of an Apple Snack Enriched with Probiotic Lacticaseibacillus rhamnosus: Evaluation of the Refractance Window Drying Process on Cell Viability. *Foods*, 13(11), 1756. <https://doi.org/10.3390/foods13111756>
2. Fuentealba, C., Álvarez, F., Ponce, E., Veas, S., Salazar, M., Romero, D., Ayala-Raso, A., Alvaro, J. E., **Valdenegro, M.**, Figueroa, C. R., & Fuentes, L. (2024). Differences in primary metabolism related to quality of raspberry (*Rubus idaeus L.*) fruit under open field and protected soilless culture growing conditions. *Frontiers In Plant Science*, 14. <https://doi.org/10.3389/fpls.2023.1324066>
3. Álvarez, F., Moya, M., Rivera-Mora, C., Zúñiga, P. E., Jara-Cornejo, K., Muñoz, P., Ayala-Raso, A., Munné-Bosch, S., Figueroa, C. R., Figueroa, N. E., **Valdenegro, M.**, Alvaro, J. E., Schwab, W., Defilippi, B. G., & Fuentes, L. (2023). Abscisic Acid Synthesis and Signaling during the Ripening of Raspberry (*Rubus idaeus* ‘Heritage’) Fruit. *Plants*, 12(9), 1882. <https://doi.org/10.3390/plants12091882>
4. Morales-Quintana, L., Monsalve, L., Bernales, M., Figueroa, C. R., **Valdenegro, M.**, Olivares, A., Álvarez, F., Cherian, S., & Fuentes, L. (2023). Molecular dynamics simulation of the interaction of a raspberry polygalacturonase (RiPG) with a PG inhibiting protein (RiPGIP) isolated from ripening raspberry (*Rubus idaeus* cv. Heritage) fruit as a model to understand proteins interaction during fruit softening. *Journal Of Molecular Graphics And Modelling*, 122, 108502. <https://doi.org/10.1016/j.jmgm.2023.108502>
5. **Valdenegro M**, Fuentes L, Bernales M, Huidobro C, Monsalve L, Hernández I, Schelle M, Simpson R (2022). Antioxidant and Fatty Acid Changes in

Pomegranate Peel With Induced Chilling Injury and Browning by Ethylene During Long Storage Times. *Frontiers in Plant Science* 13; doi: 10.3389/fpls.2022.771094

6. Monsalve L, Bernales M, Ayala-Raso A, Álvarez F, **Valdenegro M**, Alvaro JE, Figueroa CR, Defilippi BG, Fuentes L (2022). Relationship between Endogenous Ethylene Production and Firmness during the Ripening and Cold Storage of Raspberry (*Rubus idaeus* 'Heritage') Fruit. *Horticulturae* 8(3); doi: 10.3390/horticulturae8030262
7. Mondaca P, Valenzuela P, Roldán N, Quiroz W, **Valdenegro M**, Celis-Diez JL (2022). Remediation of Agricultural Soils with Long-Term Contamination of Arsenic and Copper in Two Chilean Mediterranean Areas. *Agronomy* 12(1); doi: 10.3390/agronomy12010221
8. **Valdenegro M**, Bernales M, Knox M, Vinet R, Caballero E, Ayala-Raso A, Kučerová D, Kumar R, Viktorová J, Rumí T, Figueroa CR, Fuentes L (2021). Characterization of fruit development, antioxidant capacity, and potential vasoprotective action of peumo (*Cryptocarya alba*), a native fruit of Chile. *Antioxidants* 10(12); doi: 10.3390/antiox10121997
9. Lindh V, Uarrota V, Zulueta C, Alvaro JE, **Valdenegro M**, Cuneo IF, Mery D, Pedreschi R (2021). Image analysis reveals that lenticel damage does not result in black spot development but enhances dehydration in *persea americana* mill. Cv. hass during prolonged storage. *Agronomy* 11(9); doi: 10.3390/agronomy11091699
10. Viktorová J, Kumar R, Řehořová K, Hoang L, Rumí T, Figueroa CR, **Valdenegro M**, Fuentes L (2020). Antimicrobial activity of extracts of two native fruits of chile: Arrayan (*Iuma apiculata*) and peumo (*Cryptocarya alba*). *Antibiotics* 9(8) doi: 10.3390/antibiotics9080444
11. Bernales M, Monsalve L, Ayala-Raso A, **Valdenegro M**, Martínez JP, Travisany D, Defilippi B, González-Agüero M, Cherian S, Fuentes L (2019). Expression of two indole-3-acetic acid (IAA)-amido synthetase (GH3) genes during fruit development of raspberry (*Rubus idaeus* Heritage). *Scientia Horticulturae* 246; doi: 10.1016/j.scienta.2018.09.077
12. Fuentes L, Figueroa CR, **Valdenegro M**, Vinet R (2019). Patagonian berries: Healthy potential and the path to becoming functional foods. *Foods* 8(8); doi: 10.3390/foods8080289
13. Fuentes L, Figueroa CR, **Valdenegro M** (2019). Recent advances in hormonal regulation and cross-talk during non-climacteric fruit development and ripening. *Horticulturae* 5(2); doi: 10.3390/horticulturae5020045

14. Schele M, Huidobro C, Monsalve L, Simpson R, Fuentes L, **Valdenegro M** (2018). Biochemical and functional changes in pomegranate fruit (*Punica granatum*) during cold storage. En F. Artes, F. Artes-Hernandez, E. Aguayo, & P. A. Gomez (Eds.), *8th International Postharvest Symposium: Enhancing Supply Chain and Consumer Benefits - Ethical and Technological Issues*; doi: 10.17660/ActaHortic.2018.1194.64
15. Monsalve L, Ayala-Raso A, Bernales M, **Valdenegro M**, Defilippi B, González-Agüero M, Cherian S, Fuentes L (2018). Dataset on quality and physiological changes of raspberry fruit during their development and under auxin in-vitro assay. *Data in Brief* 21; doi: 10.1016/j.dib.2018.10.089
16. Vega O, Carvajal L, Rodríguez F, Marín M, Ramírez C, Simpson R & **M Valdenegro** (2017) Effect of thermal pretreatments and cooking characteristics on physicochemical, rheological, and sensorial properties of food products based on cassava (*Manihot esculenta* Crantz). *Journal of Food Process Engineering*, 41, e12612; doi: 10.1111/jfpe.12612.
17. Galaz P, **M Valdenegro**, C Ramirez, H Nunez, S Almonacid & R Simpson (2017) Effect of drum drying temperature on drying kinetic and polyphenol contents in pomegranate peel. *Journal of Food Engineering* 208: 19-27; doi: 10.1016/j.jfoodeng.2017.04.002
18. Fuentes L, **M Valdenegro**, MG Gómez, A Ayala-Raso, E Quiroga, JP Martínez, R Vinet, E Caballero & CR Figueroa (2016) Characterization of fruit development and potential health benefits of arrayan (*Luma apiculata*), a native berry of South America. *Food Chemistry* 196: 1239-1247; doi: 10.1016/j.foodchem.2015.10.003
19. Fuentes L, L Monsalve, L Morales-Quintana, **M Valdenegro**, JP Martínez, BG Defilippi & M González-Agüero (2015) Differential expression of ethylene biosynthesis genes in drupelets and receptacle of raspberry (*Rubus idaeus*). *Journal of Plant Physiology* 179:100-105; doi: 10.1016/j.jplph.2015.02.005

## II. EXPERIENCIA EN PROYECTOS DE INVESTIGACION (2015 – presente)

### *Proyectos con fondos concursables*

2020 – 2023 **Co-I FONDECYT REGULAR N°1201662.** Regulation of firmness loss in raspberry fruit: role of annexin and calmodulin and their regulation by abscisic acid, ethylene, and calcium.

2018 – 2020 **FONDEF N° ID17AL0056, CONIYT.** Control y disminución de metales en hortalizas cultivadas en la Región de Valparaíso a través del uso de enmiendas.

2014 - (2016) Study of physiological, biochemical and molecular responses associated to chilling injury in pomegranate fruit (*Punica granatum*).