

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

**Claudia Fuentealba Carrasco**

**Publicaciones (2018- Presente)**

1. **Fuentealba, C.**, Vidal, J., Zulueta, C., Ponce, E., Uarrota, V., Defilippi, B., Pedreschi, R. 2022. Controlled Atmosphere Storage Alleviates Hass Avocado Black Spot Disorder. *Horticulturae*, 8: 369.
2. Pedreschi, R., Ponce, E., Hernández, I., **Fuentealba, C.**, Urbina, A., González-Fernández, J., Hormaza, J., Campos, D., Chirinos, R., Aguayo, E. 2022. Short vs. Long-distance avocado supply chains: life cycle assessment impact associated to transport and effect of fruit origin and supply conditions chain on primary and secondary metabolites. *Foods*, 11: 1807.
3. Nuñez-Lillo, G., Ponce, E., Alvaro, J.E., Campos, D., Meneses, C., Campos-Vargas, R., Carpentier, S., **Fuentealba, C.**, Pedreschi, R. 2022. Proteomics analysis reveals new insights into surface pitting of sweet cherry cultivars displaying contrasting susceptibility. *The Journal of Horticultural Science and Biotechnology*, 97: 615-625.
4. Fuentes-Cardenas, I., Cuba-Puma, R., Marcilla-Truyenque, S., Begazo-Gutiérrez, H., Zolla, G., **Fuentealba, C.**, Shetty, K., Gálvez-Ranilla, L. 2022. Diversity of the Peruvian Andean maize (*Zea mays* L.) race Cabanita: Polyphenols, carotenoids, in vitro antioxidant capacity, and physical characteristics. *Frontiers in Nutrition*, 9: 983208
5. Hernández, I., Uarrota, V., **Fuentealba, C.**, Paredes, D., Defilippi, B.G., Campos-Vargas, R., Nuñez, G., Carrera, E., Meneses, C., Hertog, M., Pedreschi, R. 2022. Transcriptome and hormone analyses reveals differences in physiological age of 'Hass' avocado fruit. *Postharvest Biology and Technology*, 185: 111806.
6. Delgado, N., Olivera, M., Cádiz, F., Bravo, G., Montenegro, I., Madrid, A., **Fuentealba, C.**, Pedreschi, R., Salgado, E., Besoain, X. 2021. Volatile Organic Compounds (VOCs) produced by *Gluconobacter cerinus* and *Hanseniaspora osmophila* displaying control effect against table grape-rot pathogens. *Antibiotics-Basel*, 10: 663. Q2.
7. Gálvez-Ranilla, L., Rios-Gonzales, B.A., Ramírez-Pinto, M.F., **Fuentealba, C.**, Pedreschi, R., Shetty, K. 2021. Primary and Phenolic Metabolites Analyses, In Vitro Health-Relevant Bioactivity and Physical Characteristics of Purple Corn (*Zea mays* L.) Grown at Two Andean Geographical Locations. *Metabolites*, 11, 722. Q2.
8. **Fuentealba, C.**, Ejsmentewicz, T., Campos-Vargas, R., Saa, S., Aliaga, O., Chirinos, R., Campos, D., Pedreschi, R. 2021. Cell wall and metabolite composition of sweet cherry fruits from two cultivars with contrasting susceptibility to surface pitting during storage. *Food Chemistry*, 342: 128307. Q1.
9. Covarrubias, M.P., Lillo-Carmona, V., Melet, L., Benedetto, G., Andrade, D., Maucourt, M., Deborde, C., **Fuentealba, C.**, Moing, A., Valenzuela, M.L., Pedreschi, R., Miyasaka Almeida, A.

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

2021. Metabolite fruit profile is altered in response to source–sink imbalance and can be used as an early predictor of fruit quality in nectarine. *Frontiers in Plant Science*, 11: 604133. Q1.
10. Ponce, E., Alzola, B., Cáceres, N., Gas, M., Ferreira, C., Vidal, J., Chirinos, R., Campos, D., Rubilar, M., Campos-Vargas, R., Pedreschi, R., **Fuentealba, C.** 2021. Biochemical and phenotypic characterization of sweet cherry (*Prunus avium* L.) cultivars with induced surface pitting. *Postharvest Biology and Technology*, 175: 111494. Q1.
  11. Hernández, I., Uarrotta, V., Paredes, D., **Fuentealba, C.**, Defilippi, B.G., Campos-Vargas, R., Meneses, C., Hertog, M., Pedreschi, R. 2021. Can metabolites at harvest be used as physiological markers for modelling the softening behaviour of Chilean “Hass” avocados destined to local and distant markets? *Postharvest Biology and Technology*, 174: 111457. Q1.
  12. Uarrotta, V.G., Hernandez, I., Ponce, E., Vidal, J., **Fuentealba, C.**, Defilippi, B.G., Lindh, V., Zulueta, C., Chirinos, R., Campos, D., Pedreschi, R. 2020. Unravelling factors associated with ‘blackspot’ disorder in stored Hass avocado (*Persea americana* Mill) fruit. *The Journal of Horticultural Science and Biotechnology*, 95 (6): 804-815. Q2.
  13. Uarrotta, V.G., **Fuentealba, C.**, Hernández, I., Defilippi-Bruzzzone, B., Meneses, C., Campos-Vargas, R., Lurie, S., Hertog, M., Carpentier, S., Poblete-Echeverría, C., Pedreschi, R. 2019. Integration of proteomics and metabolomics data of early and middle season T Hass avocados under heat treatment. *Food Chemistry* 289: 512-521. Q1.
  14. Gálvez, L., Huamán-Alvino, C., Flores-Báez, O., Aquino-Méndez, E.M., Chirinos, R., Campos, D., Sevilla, R., **Fuentealba, C.**, Pedreschi, R., Sarkar, D., Shetty, K. 2019. Evaluation of phenolic antioxidant-linked in vitro bioactivity of Peruvian corn (*Zea mays* L.) diversity targeting for potential management of hyperglycemia and obesity. *Journal of Food Science and Technology* 56: 2909–2924. Q3.
  15. Pedreschi, R., Uarrotta, V., **Fuentealba, C.**, Alvaro, J.E., Olmedo, P., Defilippi, B.G., Meneses, C., Campos-Vargas, R. 2019. Primary Metabolism in Avocado Fruit. *Frontiers in Plant Science* 10: 795. Q1.
  16. Rodríguez, F., Pedreschi, R., **Fuentealba, C.**, de Kartzow, A., Olaeta, J.A., Alvaro, J.E. 2019. The increase in electrical conductivity of nutrient solution enhances compositional and sensory properties of tomato fruit cv. Patrón. *Scientia Horticulturae* 244: 388-398. Q1.
  17. Muñoz, O., **Fuentealba, C.**, Ampuero, A., Figuerola, F., Estévez, A.M. 2018. The effect of *Lactobacillus acidophilus* and *Lactobacillus casei* on the in vitro bioaccessibility of flaxseed lignans (*Linum usitatissimum* L.). *Food & Function* 9: 2426-2432. Q1.
  18. Zepeda, B., Olmedo, P., Ejsmentewics, T., Sepúlveda, P., Balic, I., Balladares, C., Delgado-Rioseco, J., **Fuentealba, C.**, Moreno, A., Defilippi, B., Meneses, C., Pedreschi, R., Campos-Vargas, R. 2018. Cell wall and metabolite composition of berries of *Vitis vinifera* (L.) cv. Thompson Seedless with different firmness. *Food Chemistry* 268: 492-497. Q1.

## DOCTORADO EN CIENCIAS AGROALIMENTARIAS

### Proyectos con financiamiento externo últimos 5 años (adjudicado y/o ejecutado)

1. Cell wall remodeling in sweet cherry with surface pitting: an underlying response during cold stress.  
Financiamiento: Fondecyt Regular N°1221616, ANID  
Rol: Investigadora Responsable  
Duración: 2022-2026  
Año de adjudicación: 2022
2. Hydrogels based on biorenewable nano(fibers/crystals) from chitin, cellulose, alginate and silk to save water in chilean agriculture (NanoBioGel)  
Financiamiento: ECOS210006. Programa de Cooperación Científica ECOS-ANID  
Rol: Investigadora Responsable  
Duración: 2022-2024  
Año de adjudicación: 2022
3. Physiological status at harvest: key to predict postharvest ripening behaviour of Chilean Hass avocado.  
Financiamiento: Fondecyt Regular N°1180303, ANID  
Rol: Co-Investigador  
Duración: 2018-2022  
Año de adjudicación: 2018
4. Red de investigación Perú-Chile: compartiendo experiencias y desafíos relacionados a la biotecnología vegetal, industrial & bioprocesos.  
Financiamiento: Redes de investigación en Biotecnología Chile-Perú REDBIO0001. Programa de Cooperación Internacional, ANID.  
Rol: Investigadora asociada  
Duración: 2019-2021  
Año adjudicación: 2019
5. An integrative approach to understand surface pitting in sweet cherries  
Financiamiento: FONDECYT de Iniciación en Investigación 11170360  
Rol: Investigador Responsable  
Duración: 2017- 2020  
Año adjudicación: 2017