

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Romina Pedreschi Plasencia

Publicaciones (2013- presente)

1. Chirinos R, K Ochoa, A Aguilar-Gálvez, S Carpentier, R Pedreschi & D Campos (2018) Obtaining of peptides with antioxidant and antihypertensive properties from cañihua protein (*Chenopodium pallidicaule* Aellen). *Journal of Cereal Science*, 83, 139-146.
2. Zepeda B, P Olmedo, T Ejsmentewicz, P Sepúlveda, I Balic, A Moreno, C Balladares, J Delgado-Rioseco, C Fuentealba, B Defilippi, C Meneses, R Pedreschi & R Campos-Vargas. (2018) Cell wall and metabolite composition of berries of *Vitis vinifera* (L.) cv Thompson Seedless with different firmness. *Food Chemistry*, 268, 492-497.
3. García-Mazcorro, J, R Pedreschi, B Chew, S Dowd, J Kawas & G Noratto (2018) Dietary supplementation with raspberry extracts modifies the fecal microbiota in obese diabetic db/db mice. *Journal of Microbiology & Biotechnology*, 28, 1247-1259.
4. Pedreschi F, I Saavedra, A Bungler, R Zuñiga, R Pedreschi, R Chirinos, D Campos, S Mariotti (2018) Tara pod (*Caesalpinia spinosa*) extract mitigates neo-contaminant formation in Chilean bread preserving their sensory attributes. *LWT Food Science & Technology*, 95, 116-122.
5. Terán-Hilares R, R Chirinos, R Pedreschi & D Campos (2018) Enhanced antioxidant properties of tara gallotannins by thermal hydrolysis and its synergistic effects with α -tocopherol, ascorbyl palmitate and citric acid on sachá inchi oil. *Journal of Food Process Engineering*, 41, e12613.
6. Hernández I, C Fuentealba, JA Olaeta, C Poblete, B Defilippi, M González, R Campos-Vargas, S Lurie & R Pedreschi (2017) Effects of heat shock and nitrogen shock pre-treatments on ripening heterogeneity of Hass avocados stored in controlled atmosphere. *Scientia Horticulturae*, 225, 408-415.
7. Fuentealba C, I Hernández, JA Olaeta, B Defilippi, C Meneses, R Campos-Vargas, S Lurie, S Carpentier & R Pedreschi (2017) New insights into the Heterogeneous ripening in Hass avocado via LC MS/MS proteomics. *Postharvest Biology and Technology* 132, 51-61.
8. Campos D, L Mescua, A Aguilar-Gálvez, R Chirinos & R Pedreschi (2017) Effect of fructooligosaccharide purification technique using activated charcoal or ion exchange fixed bed column on recovery, purity and contents of fructose, glucose and sucrose. *International Journal of Food Science and Technology*, 52, 2637-2646.

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9. Fuentealba C, I Hernandez, S Saa, L Toledo, P Burdiles, R Chirinos, D Campos, P Brown & R Pedreschi. (2017) Color and in vitro quality attributes of walnuts from different growing conditions correlate with key precursors of primary and secondary metabolism. *Food Chemistry*, 232, 664-672.
10. Chirinos R, M Aquino, R Pedreschi & D Campos (2017) Optimized methodology for alkaline and enzyme assisted extraction of protein from sacha inchi (*Plukenetia volubilis*) kernel cake. *Journal of Food Process Engineering*, 40, e12412.
11. Betalleluz-Pallardel I, M Inga, L Mera, R Pedreschi, D Campos & R Chirinos (2017) Optimization of extraction conditions and thermal properties of protein from the Andean pseudocereal cañihua (*Chenopodium pallidicaule* Aellen). *International Journal of Food Science & Technology*, 52, 1026-1034.
12. Fuentealba C, R Pedreschi & J Saavedra (2016) A statistical approach to assess the heterogeneity of Hass avocados submitted to different postharvest abiotic stresses. *Ciencia e Investigación Agraria*, 43, 356-365.
13. Fuentealba C, L Galvez, A Cobos, JA Olaeta, BG Defilippi, R Chirinos, D Campos & R Pedreschi. (2016) Characterization of main primary and secondary metabolites and in vitro antioxidant and antihyperglycemic properties of the mesocarp tissue of three biotypes of *Pouteria lucuma*. *Food Chemistry*, 190, 403-411.
14. Pedreschi R, S Hollak, H Harkema, E Otma, P Robledo, E Westra, D Somhorst, R Ferreyra & BG Defilippi (2016) Impact of postharvest ripening strategies on Hass avocado fatty acid profiles. *South African Journal of Botany*, 103, 32-35.
15. Mendieta B, JA Olaeta, R Pedreschi & P Undurraga (2016) Reduction of cold damage during cold storage of Hass avocado by a combined use of pre-conditioning and waxing. *Scientia Horticulturae*, 8, 119-124.
16. Chirinos R, O Necochea, R Pedreschi & D Campos (2016) Sacha inchi (*Plukenetia volubilis* L.) Shell: an alternative source of phenolic compounds and antioxidants. *International Journal of Food Science and Technology*, 51, 986-993.
17. Campos D, A Aguilar-Galvez & R Pedreschi (2016) Stability of fructooligosaccharides, sugars and color of yacon (*Smallanthus sonchifolius*) roots during blanching and drying. *International Journal of Food Science & Technology*, 51, 1177-1185.
18. Chirinos R, D Zorrilla, A Aguilar-Galvez, R Pedreschi & D Campos (2016) Impact of roasting on fatty acids, tocopherols, phytosterols and phenolic compounds present in *Plukenetia huayllabambana* seed. *Journal of Chemistry*, Article ID 6570935.

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19. Hernández I, C Fuentealba, JA Olaeta, S Lurie, B Defilippi, R Campos-Vargas & R Pedreschi (2016) Factors associated with postharvest ripening heterogeneity of Hass avocados (*Persea americana* Mill). *Fruits*, 71(5), 259-268.
20. Riquelme J, JA Olaeta, L Gálvez, P Undurraga, C Fuentealba, A Osses, J Orellana, J Gallardo & R Pedreschi (2016) Nutritional and functional characterization of wild and cultivated *Sarcocornia neei* grown in Chile. *Ciencia e Investigación Agraria*, 43(2): 283-293.
21. Chirinos R, R Pedreschi, G Domínguez & D Campos (2015) Comparison of the physico-chemical and phytochemical characteristics of the oil of two *Plukenetia* species. *Food Chemistry*, 173, 1203-1206.
22. Pedreschi R & S Lurie (2015) Advances and current challenges in understanding postharvest abiotic stresses in perishables. *Postharvest Biology & Technology*, 107, 77-89.
23. Guerrero-Ochoa M, R Pedreschi & R Chirinos (2015) Optimized methodology for the extraction of protein from quinoa (*Chenopodium quinoa* Willd). *International Journal of Food Science & Technology*, 50, 1815-1822.
24. Chirinos R, R Pedreschi, I Cedano & D Campos (2015) Antioxidants from mashua (*Tropaeolum tuberosum*) control lipid oxidation in sacha inchi (*Plukenetia volubilis* L.) oil and raw ground pork meat. *Journal of Food Processing and Preservation*, 39, 2612-2619.
25. Pedreschi R, P Muñoz, B Defilippi, H van Eekelen, R Mumm, E Westra & R de Vos (2014) Metabolomics analysis of postharvest ripening heterogeneity of 'Hass' avocados. *Postharvest Biology and Technology*, 92, 172-179.
26. Lurie S & R Pedreschi (2014) Fundamental aspects of postharvest heat treatments. *Horticulture Research*, 1, 14030.
27. Agrawal GK, A Sarkar, PG Righetti, R Pedreschi, S Carpentier, T Wang, BJ Barkla, A Kohli, BK Ndimba, NV Bykova, C Rampitsch, L Zolla, MS Rafudeen, R Cramer, LV Bindschedler, N Tsakirpaloglou, RJ Ndimba, JM Farrant, J Renaut, D Job, S Kikuchi & R Rakwal (2013) A decade of plant proteomics: translation of technical advancements to food security and safety issues. *Mass Spectrometry Reviews*, 32, 335- 365.
28. Chirinos R, R Pedreschi, H Rogez, Y Larondelle & D Campos (2013) Phenolic compound contents and antioxidant activity in plants with nutritional and/or medicinal properties from the Peruvian Andean region. *Industrial Crops & Products*, 47, 145-152.

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29. Harkema H, M Mensink, D Somhorst, R Pedreschi & E Westra (2013) Reduction of Botrytis cinerea incidence in cut roses during long term transport in dry conditions. *Postharvest Biology & Technology*, 76, 135-138.
30. Pedreschi R, S Lurie, B Nicolaï, M Hertog, J Mes & E Woltering (2013) Postharvest proteomics and food security. *Proteomics*, 13, 1772-1783.
31. Chambi F, R Chirinos, R Pedreschi, I Betalleluz-Pallardel, F Debaste & D Campos (2013) Antioxidant potential of hydrolyzed polyphenolic extracts from tara (*Caesalpinia spinosa*) pods. *Industrial Crops & Products*, 47, 165-175.
32. Campos D, R Chirinos, O Barreto, G Noratto & R Pedreschi (2013) Optimized methodology for the simultaneous extraction of glucosinolates, phenolic compounds and antioxidant activity from maca (*Lepidium meyenii*). *Industrial Crops & Products*, 49, 747-754.
33. Chirinos R, G Zuloeta, R Pedreschi, E Mignolet, Y Larondelle & D Campos (2013) Sacha Inchi (*Plukenetia volubilis*): a source of polyunsaturated fatty acids, tocopherols, phytosterols, phenolic compounds and antioxidant activity. *Food Chemistry*, 141, 1732-1739.

Proyectos con financiamiento externo (2013-presente)

1. Physiological status at harvest: key to predict postharvest ripening behaviour of Chilean Hass avocado.
Financiamiento: Fondecyt Regular N° 1180303
Rol: Investigador Responsable
Duración: 2018-2022
Año adjudicación: 2018
Tipo de investigación: Básica
2. Entendiendo la complejidad metabólica y nutricional de frutos en poscosecha: una perspectiva integradora desde la biología de sistemas.
Financiamiento: Concurso de apoyo a la formación de redes internacionales para investigadores en etapa inicial, REDI170422
Rol: Investigador Responsable
Duración: 2017-2019
Año Adjudicación: 2017
Tipo de Investigación: Aplicada

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3. Postharvest Systems Biology: hands on integrating omics data into metabolic networks Chile-Belgium-Israel.

Financiamiento: Apoyo a la Formación de Redes Internacionales entre Centros de Investigación 2015, REDES150030

Rol: Investigador responsable

Duración: 2016-2017

Año adjudicación: 2015

Tipo de investigación: Asociativa

4. Creación de un piloto demostrativo para la obtención de productos deshidratados de alta calidad mediante investigación y desarrollo colaborativo con PyMEs y el Reino Unido.

Financiamiento: I Concurso de Fortalecimiento de Centros Regionales para el desarrollo territorial mediante proyectos de I+D colaborativa con PYMES. Conicyt

Rol: Co-Investigador

Duración: 2015-2016

Año adjudicación: 2015

Tipo de investigación: Aplicada

5. Identification of biomarkers associated with mealiness in peach using mQTL and meQTL.

Financiamiento: Fondecyt Regular N° 1160584

Rol: Co-Investigador

Duración: 2016-2020

Año adjudicación: 2016

Tipo de investigación: Básica

6. Discovery of biomarker candidates linked to table grape berry firmness based on transcriptomic and metabolomics analysis.

Financiamiento: Fondecyt Regular N° 1150492

Rol: Co-Investigador

Duración: 2015-2019

Año adjudicación: 2015

Tipo de investigación: Básica

7. An integrative approach to study 'Hass' avocado postharvest ripening heterogeneity.

Financiamiento: Fondecyt Iniciación N° 11140052

Rol: Investigador responsable

Duración: 2014-2017

Año adjudicación: 2014

Tipo de investigación: Básica



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8. Gas chromatograph (GC) coupled to a mass detector (MS).

Financiamiento: FONDEQUIP N° EQM140074. III Contest for Scientific & Technological Medium Equipment

Rol: Investigador responsable

Duración: 2014-2015

Año adjudicación: 2014

Tipo de investigación: Equipamiento

9. Controlled Ripening in smart chains.

Financiamiento: Wageningen UR. Netherlands

Rol: Investigador responsable

Duración: 2013-2014

Año adjudicación: 2013

Tipo de investigación: Aplicada