

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Romina Pedreschi Plasencia

Publicaciones (2018- presente)

1. Núñez-Lillo, G., Ponce, E., Arancibia-Guerra, C., Carpentier, S., Carrasco-Pancorbo, A., Olmo-García, L., Chirinos, R., Campos, D., Campos-Vargas, R., Meneses, C., **Pedreschi, R.** 2023. A multiomics integrative analysis of color de-synchronization with softening of 'Hass' avocado fruit: A first insight into a complex physiological disorder. *Food Chemistry*, 408, 135215, Q1.
2. Aguilar-Gálvez, A., García-Ríos, D., Ramírez-Guzmán, D., Lindo, J., Chirinos, R., **Pedreschi, R.**, Campos, D. 2023. In vitro and in vivo biotransformation of glucosinolates from mashua (*Tropaeolum tuberosum*) by lactic acid bacteria. *Food Chemistry*, 404: 134631. Q1.
3. Núñez-Lillo, G., Pérez-Reyes, W., Riveros, A., Lillo-Carmona, V., Rothkegel, K., Álvarez, JM., Blanco-Herrera, F., **Pedreschi, R.**, Campos-Vargas, R., Meneses, C. 2022. Transcriptome and gene regulatory network analysis reveal new transcription factors controlling harvest date in *Prunus persica*. *Plants*, 11: 3473. Q1.
4. Uarrota, V., Hernández, I., Ponce, E., Bauer, C., Maraschin, M., **Pedreschi, R.** 2022. Metabolic profiling and biochemical analysis of stored Hass avocado fruit by GC-MS and UHPLC-UV-VIS revealed oxidative stress as the main driver of "Blackspot" physiological disorder. *International Journal of Food Science & Technology*, 57: 7896-7916, Q2.
5. Aguilar-Gálvez, A., García-Ríos, D., Lindo, J., Ramírez-Guzmán, D., Chirinos, R., **Pedreschi, R.**, Campos, D. 2022. Impact of cold storage followed by drying of mashua tuber (*Tropaeolum tuberosum*) on the glucosinolate content and their transformation products. *International Journal of Food Science & Technology*, 57: 7797-7805. Q2.
6. Chirinos, R., Villasante-Bravo, N., Aguilar-Gálvez, A., Figueroa-Merma, A., Carpentier, S., **Pedreschi, R.**, Campos, D. 2022. Antioxidant, antihypertensive and antidiabetic properties of peptidic fractions obtained from tarwi (*Lupinus mutabilis*) protein hydrolysate and identification of promising multifunctional bioactive properties. *International Journal of Food Science & Technology*, 57: 7402-7411. Q2.
7. Chirinos, R., Ramona, K., Mendoza, M., Figueroa-Merma, A., Pacheco-Ávalos, D., Campos, D., **Pedreschi, R.** 2022. Effect of prolonged cold storage on the dynamics of the enzymatic and non-enzymatic antioxidant system in the mesocarp of avocado (*Persea americana*) cv. Hass: relationship with oxidative processes. *Horticulturae*, 8: 369, Q1.
8. Cisneros-Yupanki, M., **Pedreschi, R.**, Aguilar-Gálvez, A., Chirinos, R., Campos, D. 2022. Fractionation and separation of peptides with antioxidant and angiotensin-I converting enzyme inhibitory activities from a quinoa (*Chenopodium quinoa* Willd.) hydrolysate. *Journal of Microbiology, Biotechnology and Food Sciences*, 12: e2686. Q4.

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9. Olivares, D., García-Rojas, M., Ulloa, P; Riveros, A., **Pedreschi, R.**, Campos-Vargas, R., Meneses, C., Defilippi, B. 2022. Response mechanisms of Hass avocado under 1-methyl cyclopropene (1-MCP) application at different maturity stages during cold storage. *Plants*, 11: 1781. Q1.
10. Arancibia-Guerra, C., Nuñez-Lillo, G., Cáceres-Mella, A., Carrera, E., Meneses, C., Kuhn, N., **Pedreschi, R.** 2022. Color de-synchronization with softening of "Hass" avocado: targeted pigment, hormone and gene expression analysis. *Postharvest Biology & Technology*, 194: 112067. Q1.
11. Uarrota, V., **Pedreschi, R.** 2022. Mathematical modeling of Hass avocado firmness by destructive and non-destructive devices at different maturity stages and under two storage conditions. *Folia Horticulturae*, 34, 1-12. Q2.
12. Serrano-García, I., Hurtado-Fernández, H., Gonzalez-Fernandez, J., Hormaza, J.I., **Pedreschi, R.**, Olmo-García, L., Carrasco-Pancorbo, A. Prolonged on-tree maturation vs. cold storage of Hass avocado fruit: changes in metabolites of bioactive interest at edible ripeness. *Food Chemistry*, 394: 133447. Q1.
13. **Pedreschi, R.**, Ponce, E., Hernández, I., Fuentealba, C., Urbina, A., González-Fernández, J., Hormaza, I., 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. Q1.
14. Balic, I., Olmedo, P., Zepeda, B., Rojas, B., Ejsmentewic, T., Barros, M., Aguayo, D., Moreno, A., **Pedreschi, R.**, Meneses, C., Campos-Vargas, R. 2022. Metabolomic and biochemical analysis of mesocarp tissues from table grape berries with contrasting firmness reveals differences in cell wall composition associated to harvest and cold storage. *Food Chemistry*, 389: 133052, Q1.
15. Fuentealba, C., Vidal, J., Zulueta, C., Ponce, E., Uarrota, V., Defilippi, B., **Pedreschi, R.** 2022. Controlled atmosphere storage alleviates Hass avocado black spot disorder: implications of the skin antioxidant defense system. *Horticulturae*, 8: 369. Q1.
16. Beyer, C., Barrientos-Sanhueza, C., Ponce, E., **Pedreschi, R.**, Cuneo, I., Alvaro, JE. 2022. Differential hydraulic properties and primary metabolism in fine root of avocado trees rootstocks. *Plants*, 11: 1059. Q1.
17. Nuñez-Lillo, G., Ponce, E., Alvaro, JA., Campos, D., Meneses, C., Campos-Vargas, R., Carpentier, D., Fuentealba, C., **Pedreschi, R.** 2022. Proteomics analysis reveals new insights into surface pitting of sweet cherry cultivars displaying contrasting susceptibility. *Journal of Horticulture Science & Biotechnology*, 97: 615-625. Q2.
18. Hernández, I., Uarrota, V., Fuentealba, C., Paredes, D., Defilippi, B., Campos-Vargas, R., Nuñez, G., Carrera, E., Meneses, C., Hertog, M., **Pedreschi, R.** 2022. Transcriptome and hormone analysis reveals differences in physiological age of Hass avocado fruit. *Postharvest Biology & Technology*, 185: 111806. Q1.

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19. Pedreschi, F., Matus, J., Bunger, A., **Pedreschi, R.**, Huamán-Castilla, N., Mariotti-Celis, S. 2022. Effect of the integrated addition of a red Tara pods (*Caesalpinia spinosa*) extract and NaCl over the neo-formed contaminants content and sensory properties of crackers. *Molecules*, 27: 1020. Q2.
20. Campos, D., García-Ríos, D., Aguilar-Gálvez, A., Chirinos, R., Pardo-Flores, A., **Pedreschi, R.** 2022. Comparison of conventional and ultrasound assisted extractions of polyphenols from Inca Muña (*Clinopodium bolivianum*) and their characterisation using UPLC-ESI-Q/TOF-MSn and UPLC-PDA techniques. *Journal of Food Processing & Preservation*, 46: e16310. Q3.
21. Huamán, C., Chirinos, R., Gonzales, F., **Pedreschi, R.**, Campos, D. 2021. Physicochemical and bioactive compounds at edible ripeness of eleven varieties of avocado (*Persea americana*) cultivated in the Andean Region of Peru. *International Journal of Food Science and Technology*, 56: 5040-5049. Q2.
22. Rojas, B., Suárez, F., Saez, S., Olmedo, P., Zepeda, Delgado, J., Defilippi, B., **Pedreschi, R.**, Meneses, C., Pérez, A., Campos, R. 2021. Pre-anthesis cytokinin applications increase table grape berries firmness by modulating cell wall polysaccharides. *Plants*, 10: 2642. Q1.
23. Chirinos, R., Campos, D., Martínez, S., Llanos, S., Betallaluz, I., García, D., **Pedreschi, R.** 2021. The effect of hydrothermal treatment on metabolite composition of Hass avocado stored in controlled atmosphere. *Plants*, 10: 2427. Q1.
24. Núñez, G., Ulloa, L., Pavez, C., Riveros, A., Campos, R., **Pedreschi, R.**, Meneses, C. 2021. Unravelling the molecular regulation mechanisms of slow ripening fruit in *Prunus persica*. *Plants*, 10: 2380. Q1.
25. 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*, 10: 663. Q2.
26. Gálvez, L., Ríos, B., Ramírez, M., 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.
27. Lindh, V., Uarrota, V., Zulueta, C., Alvaro, J., Valdenegro, M., Cuneo, I., 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-Basel*, 11: 9. Q1.
28. Olivera, M., Delgado, N., Cádiz, F., Riquelme, N., Montenegro, I., Seeger, M., Bravo, G., Barros, W., **Pedreschi, R.**, Besoain, X. 2021. Diffusible compounds produced by *Hanseniaspora osmophila* and *Gluconobacter cerinus* help to control the causal agents of gray rot and summer bunch rot of table grapes. *Antibiotics*, 10: 664. Q2.

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29. Ponce, E., Alzola, B., Cáceres, N., Gas, M., Ferreira, C., Vidal, J., Chirinos, R., Campos, D., Rubilar, M., Campos, R., **Pedreschi, R.**, Fuentealba, C. 2021. Biochemical and phenotypic characterization of sweet cherry (*Prunus avium* L.) cultivars with induced surface pitting. *Postharvest Biology & Technology*, 175: 111494. Q1.
30. Aguilar, A., García, D., Janampa, C., Mejía, C., Chirinos, R., **Pedreschi, R.**, Campos, D. 2021. Metabolites, volatile compounds and in vitro functional properties during growth and commercial harvest of Peruvian lucuma (*Pouteria lucuma*). *Food Bioscience*, 40: 100882. Q2.
31. Uarrota, V., Maraschin, V., de Bairros, A., **Pedreschi, R.** 2021. Factors affecting the capsaicinoid profile of hot peppers and biological activity of their non-pungent analogues (capsinoids) present in sweet peppers. *Critical Reviews in Food Science and Nutrition*, 61: 649-665. Q1.
32. Hernández, I., Uarrota, V., Paredes, D., Fuentealba, C., Defilippi, B.G., Campos-V, 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 & Technology*, 174: 111457. Q1.
33. Covarrubias, M., Lillo, V., Melet, L., Benedetto, G., Andrade, D., Maucourt, M., Deborde, C., Fuentealba, C., Moing, A., Valenzuela, M., **Pedreschi, R.**, Miyasaka, A. 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.
34. Chirinos, R., Cerna, M., **Pedreschi, R.**, Calsin, M., Aguilar, A., Campos, D. 2021. Multifunctional in vitro bioactive properties: antioxidant, antidiabetic and antihypertensive of protein hydrolyzates from Tarwi (*Lupinus mutabilis* Sweet) obtained by enzymatic biotransformation. *Cereal Chemistry*, 98: 423-433. Q3.
35. Beyer, C., Cuneo, I., Alvaro, J., **Pedreschi, R.** 2021. Evaluation of aerial and root plant growth behavior, water and nutrient use efficiency and carbohydrate dynamics for Hass avocado grown in a soilless and protected growing system. *Scientia Horticulturae*, 277: 109830. Q1.
36. Fuentealba, C., Ejsmentewicz, T., Campos, 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.
37. Mejía, R., Aguilar, A., Chirinos, R., **Pedreschi, R.**, Campos, D. 2021. Vacuum impregnation of apple slices with Yacon (*Smallanthus sonchifolius* Poepp & Endl) fructooligosaccharides to enhance the functional properties of the fruit snack. *International Journal of Food Science and Technology*, 56: 392-401. Q2.
38. Chirinos, R., Sánchez, R., **Pedreschi, R.**, Campos, D. 2020. Enzyme-assisted hidrolisates from sacha inchi (*Plukenetia volubilis*) protein with in vitro antioxidant and antihypertensive properties. *Journal of Food Processing and Preservation*, 44: e14969. Q3.

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39. Chirinos, R., **Pedreschi, R.**, Velásquez, M., Aguilar, A., Campos, D. 2020. In vitro antioxidant and angiotensine-I converting enzyme inhibitory properties of enzymatically hydrolyzed quinoa (*Chenopodium quinoa*) and kiwicha (*Amaranthus caudatus*) proteins. *Cereal Chemistry*, 97: 949-957. Q3.
40. Lillo, V., Espinoza, A., Rothkegel, K., Nilo, D., **Pedreschi, R.**, Campos, R., Meneses, C. 2020. Identification of metabolite and lipid profile in a segregating peach population associated with mealiness in peach. *Metabolites*, 10: 154. Q2.
41. Uarrota, V., 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. *Journal of Horticultural Science & Biotechnology*, 95: 804-815. Q2.
42. García, D., Aguilar, A., Chirinos, R., **Pedreschi, R.**, Campos, D. 2020. Relevant metabolites for the organoleptic and functional properties of two commercial varieties of Peruvian *Pouteria lucuma*. *Journal of Food Processing and Preservation*, 44: e14479. Q3.
43. Campos, D., Terán, F., Chirinos, R., Aguilar, A., García, D., Pacheco, A., **Pedreschi, R.** 2020. Bioactive compounds and antioxidant activity from harvest to edible ripeness of avocado cv. Hass (*Persea americana*) throughout the harvest seasons. *International Journal of Food Science & Technology*, 55: 2208-2218. Q2.
44. Porras, I., Chirinos, R., García, D., Aguilar, A., Huamán, C., **Pedreschi, R.**, Campos, D. 2020. Physico-chemical characterization, metabolomic profile and in vitro antioxidant, antihypertensive, antiobesity and antidiabetic properties of Andean elderberry (*Sambucus nigra* L). *Journal of Berry Research*, 10: 193-208. Q2.
45. Alvarado, L., Saa, S., Cuneo, I., **Pedreschi, R.**, Morales, J., Larach, A., Barros, W., Besoain, X. 2020. A comparison of immediate and short-term defensive responses to *Phytophthora* species infection in both susceptible and resistant walnut rootstocks. *Plant Disease*, 104: 921-929. Q1.
46. Aguilar, A., **Pedreschi, R.**, Carpentier, S., Chirinos, R., García, D., Campos, D. 2020. Proteomics analysis of mashua (*Tropaelum tuberosum*) tubers subjected to postharvest treatments. *Food Chemistry* 305, 125485. Q1.
47. Carrasco, T., Muñoz, C., Riberos, A., **Pedreschi, R.**, Arus, P., Campos, R., Meneses, C. 2019. Expression QTL (eQTLs) analyses reveal candidate genes associated with fruit flesh softening rate in peach [*Prunus persica* (L.) Batsch]. *Frontiers in Plant Sciences* 10: 1581. Q1.
48. **Pedreschi, R.**, Uarrota, V., Fuentealba, C., Álvaro, J., Olmedo, P., Defilippi, B., Meneses, C., Campos, R. 2019. Primary metabolism in avocado fruit. *Frontiers in Plant Science* 10: 795. Q1.
49. Galvez, L., Huaman, C., Flores, O., Aquino, E., Chirinos, R., Campos, D., Sevilla, R., Fuentealba, C., **Pedreschi, R.**, Sarkar, D., Shetty, K. 2019. Evaluation of phenolic antioxidant-linked in vitro

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bioactivity of peruvian corn (*Zea mays* l.) Diversity targeting for potential management of hyperglycemia and obesity. *Journal of Food Science & Technology*, 56: 2909-2924. Q3.

50. Uarrote, V., Fuentealba, C., Hernández, I., Defilippi, B., Meneses, C., Campos, R., Hertog, M., Nicolai, B., Carpentier, S., Poblete, C., **Pedreschi, R.** 2019. Integration of proteomics and metabolomics data of early and middle season Hass avocados under heat treatment. *Food Chemistry* 289, 512-521. Q1.
51. Campos, D., Aguilar, A., García, D., Chirinos, R., Limaymanta, E., **Pedreschi, R.** 2019. Postharvest storage and cooking techniques affect the stability of glucosinolates and myrosinase activity of Andean mashua tubers (*Tropaeolum tuberosum*). *International Journal of Food Science & Technology* 54, 2387-2395. Q2.
52. García, J., **Pedreschi, R.**, Chew, B., Dowd, S., Kawas, J., Noratto, G. 2019. Dietary supplementation with apple extracts modifies the fecal microbiota in obese diabetic db/db mice. *Plos One*, 14: e0212586. Q2.
53. Vergara, C., Rothkegel, K., **Pedreschi, R.**, Campos, R., González, M., Defilippi, B., Meneses, C. 2019. De novo assembly and profile of *Persea americana* cv. 'Hass' transcriptome during fruit development. *BMC Genomics* 20:108. Q2.
54. Rodríguez, F., **Pedreschi, R.**, Fuentealba, C., De Kartzow, A., Olaeta, J., Álvaro, J. 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.
55. Chirinos, R., Ochoa, K., Aguilar, A., Carpentier, S., **Pedreschi, R.**, Campos, D. 2018. Obtaining of peptides with antioxidant and antihypertensive properties from cañihua protein (*Chenopodium pallidicaule* Aellen). *Journal of Cereal Science*, 83: 139-146. Q2.
56. Zepeda, B., Olmedo, P., Ejsmentewics, T., Sepúlveda, P., Balic, I., Balladares, C., Delgado, J., Fuentealba, C., Moreno, A., Defilippi, B., Meneses, C., **Pedreschi, R.**, Campos, 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.
57. García, J., **Pedreschi, R.**, Chew, B., Dowd, S., Kowas, J., Noratto, G. 2018. Dietary supplementation with raspberry extracts modifies the fecal microbiota in obese diabetic db/db mice. *Journal of Microbiology & Biotechnology* 28: 1247-1259. Q3.
58. Pedreschi, F., Saavedra, I., Bungler, A., Zuñiga, A., **Pedreschi, R.**, Chirinos, R., Campos, D., Mariotti, S. 2018. Mitigation of neo-contaminant formation in Chilean bread without affecting its sensory attributes: Effect of phenolic compounds from a tara (*Caesalpinia spinosa*) pod extract. *LWT Food Science & Technology*, 95: 116-122. Q1.
59. Terán, R., Chirinos, R., **Pedreschi, R.**, Campos, D. 2018. Enhanced antioxidant properties of tara (*Caesalpinia spinosa*) gallotannins by thermal hydrolysis and its synergistic effects with α -tocopherol,

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ascorbyl palmitate, and citric acid on sachá inchi (*Plukenetia volubilis*) oil. Journal of Food Process Engineering 41: e12613. Q3.

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

1. Nuevas herramientas metabolómicas para impulsar la industria del aguacate español
Financiamiento: Ayudas correspondientes a la convocatoria de 2021 de «PROYECTOS DE GENERACIÓN DE CONOCIMIENTO» en el marco del Programa Estatal para Impulsar la Investigación Científico-Técnica y su Transferencia, del Plan Estatal de Investigación Científica, Técnica y de Innovación PID2021-128508OB-I00.
Rol: Colaborador internacional
Duración: 2022 - 2024
Año de adjudicación: 2022
2. Millennium Institute Center for Genome Regulation
Financiamiento: Iniciativa Milenio ANID N° ICN2021_044
Rol: Investigador Principal
Duración: 2022 – 2032
Año de adjudicación: 2022
3. Valoración de la proteína de tora de sachá inchi (*Plukenetia volubilis*), subproducto de la industria de aceite asistido por tecnologías verdes para la obtención de hidrolizados proteicos multifuncionales: antioxidantes, antihipertensivos, hipoglucemiantes, antiobesidad y fijadores de hierro.
Financiamiento: Proyectos de Investigación Aplicada 2022-02, PE501077970-2022-PROCIENCIA
Rol: Investigador asociado internacional
Duración: 2022 - 2024
Año de adjudicación: 2022
4. Obtención y caracterización de compuestos fenólicos y terpenoides a partir de plantas utilizadas en medicina tradicional mediante tecnologías alternativas de extracción, y evaluación de su potencial antimicrobiano y antioxidante in vitro
Financiamiento: Proyectos de Investigación Básica 2022-02, PE501077921-2022-PROCIENCIA
Rol: Investigador asociado internacional
Duración: 2022 – 2024
Año de adjudicación: 2022
5. Skin color de-synchronization with softening of Hass avocado: dissecting the problem by integration of omics and targeted hormone analysis at harvest and during postharvest storage
Financiamiento: Investigador responsable
Rol: Investigador
Duración: 2022 - 2026
Año de adjudicación: 2022

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6. At the right time and at the right place: the role of cell wall calcium on fruit softening and exocarp disorders during storage on avocado (*Persea americana* Mill) grown under water deficit
Financiamiento: Fondecyt Regular – ANID N°1220484
Rol: Co-Investigador
Duración: 2022 – 2026
Año de adjudicación: 2022
7. Cell wall remodeling in sweet cherry with surface pitting: an underlying response during cold stress
Financiamiento: Fondecyt Regular – ANID N°1221616
Rol: Co-Investigador
Duración: 2022 – 2026
Año de adjudicación: 2022
8. Unravelling the biophysical modulations of the soil-mucilage-root interface in response to drought and its impact on stomatal responses in different crop species (SoMuRo)
Financiamiento: Fondecyt Regular – ANID N°1220235
Rol: Co-Investigador
Duración: 2022 - 2026
Año de adjudicación: 2022
9. Strengthening of a smart breeding platform to accelerate the selection of new plant species adapted to water restriction scenario in Chile
Financiamiento: Fondo de Investigación Estratégica en Sequía N°FSEQ210014 – ANID
Rol: Investigador Principal
Duración: 2022 – 2023
Año de adjudicación: 2021
10. A transcriptomic approach to study the differences in the parameters of root development, canopy and fruit quality of avocado cv. 'Hass' for two rootstocks grown under controlled conditions.
Financiamiento: Fondecyt -ANID Postdoctorado N°3210011
Rol: Patrocinante
Duración: 2021-2024
Año adjudicación: 2021
11. Study of cytokinin applications in early stages of berry development on changes in cell wall metabolism and its effect on the grape firmness in *Vitis vinifera*
Financiamiento: Fondecyt Regular-ANID N°1200139
Rol: Co-Investigador
Duración: 2020-2024
Año de adjudicación: 2020
12. Evaluación del sistema de defensa antioxidante y metabolitos implicados en el daño por frío de la palta (*Persea americana*) Hass para comprender y mitigar este desorden fisiológico.
Financiamiento: Fondecyt contrato 369-2019, Concytec, Perú
Rol: Investigador asociado internacional
Duración: 2019-2022

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Año adjudicación: 2019

- 13.** Red de investigación Perú-Chile: compartiendo experiencias y desafíos relacionados a la Biotecnología Vegetal, Industrial & Bioprocesos Principal.
Financiamiento: Concurso de apoyo a la cooperación en investigación Chile-Perú, redes de investigación en Biotecnología, ANID, N° REDBIO0001.
Rol: Investigador responsable
Duración: 2019-2022
Año adjudicación: 2019
- 14.** Formation and mitigation of potentially toxic compounds generated by heat processing starchy and protein matrixes.
Financiamiento: Fondecyt Regular - ANID N°1190080
Rol: Co-investigador
Duración: 2019-2023
Año de adjudicación: 2019
- 15.** Metabolic profiling of “Black spot disorder” in stored Hass avocado (Persea americana Mill) fruit
Financiamiento: Fondecyt Postdoctorado - ANID N°3190055
Rol: Patrocinante
Duración: 2019-2022
Año de adjudicación: 2019
- 16.** Physiological status at harvest: key to predict postharvest ripening behaviour of Chilean Hass avocado.
Financiamiento: Fondecyt Regular N°1180303, ANID
Rol: Investigador responsable
Duración: 2018-2022
Año de adjudicación: 2018
- 17.** Síntesis de tiocianatos, nitriles, epitionitrilos y otros con potencial anticancerígeno a partir de los glucosinolatos de mashua (*Tropaeolum tuberosum*) usando bacterias lácticas.
Financiamiento: Fondecyt E041-2018-01, Concytec, Perú
Rol: Investigador asociado internacional
Duración 2018-2021
Año adjudicación: 2018
- 18.** 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. ANID REDI170422.
Rol: Investigador
Duración: 2017-2019
Año de adjudicación: 2017