

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

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Publicaciones (2019 – presente)

1. Funes, C.F., Larach, A., **Besoain, X.**, Serrano, D.D., Hadad, C., Pedreschi, R., Van Nhien, A.N., Fuentealba, C. 2023. Active coatings based on oxidized chitin nanocrystals and silk fibroins for the control of anthracnose in ‘Hass’ avocados. *International Journal of Biological Macromolecules*, 253: 126673. Q1.
2. Larach, A., Vega-Celedón, P., Salgado, E., Salinas, A., Riquelme, N., Castillo-Navales, D., Sanhueza, P., Seeger, M., **Besoain, X.** 2023. Higher Virulence of *Diplodia seriata* Isolates on Vines of cv. Cabernet Sauvignon Associated with 10-Year-Old Wood Compared to Young Tissue. *Plants*, 12: 2984. Q1.
3. Camps, R., Fiore, N., Riquelme, N., Barros-Parada, W., **Besoain, X.** 2022. Genotype variation of citrus tristeza virus after passage on different hosts, and changes in the virus genotype populations by the vector *Aphis gossypii*. *Phytopathologia Mediterranea* 61: 55-63. Q2.
4. Luna, I.J., **Besoain, X.**, Saa, S., Peach-Fine, E., Cadiz Morales, F., Riquelme, N., Larach, A., Morales, J., Ezcurra, E., Ashworth, V.E.T.M., Rolshausen, P.E. 2022. Identity and pathogenicity of Botryosphaeriaceae and Diaporthaceae from *Juglans regia* in Chile. *Phytopathologia Mediterranea* 61: 79-94. Q2.
5. Sanfuentes, E., González, M., Castillo, M., Rubilar, R., **Besoain, X.**, Sanhueza, C., Smith, M. 2022. Detection of *Phytophthora cinnamomi* on declining *Araucaria araucana* forests. *Forest Pathology*, e12765. Q3.
6. Valenzuela, M., González, M., Velásquez, A., Dorta, F., Montenegro, I., **Besoain, X.**, Salvá, F., Jaén-Luchoro, D., Moore, E.B., Seeger, M. 2021. Analyses of virulence genes of *Clavibacter michiganensis* subsp. *michiganensis* strains reveal heterogeneity and deletions that correlate with pathogenicity. *Microorganisms*, 9: 7. Q2.
7. Díaz, K., Werner, E., **Besoain, X.**, Flores, S., Donoso, V., Said, B., Vega, E., Montenegro, I., Madrid, A. 2021. In Vitro antifungal activity and toxicity of dihydrocarvone-hybrid derivatives against *Monilinia fructicola*. *Antibiotics*, 10: 7. Q1.
8. 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-Basel*, 10: 664. Q1.
9. 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. Q1.

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10. Larach, A., Torres, C., Riquelme, N., Valenzuela, M., Salgado, E., Seeger, M., **Besoain, X.** 2020. Yield loss estimation and pathogen identification from *Botryosphaeria dieback* in vineyards of Central Chile over two growing seasons. *Phytopathologia Mediterranea*, 59: 537-548. Q2.
11. Vásconez, I., **Besoain, X.**, Vega-Celedón, P., Valenzuela, M., Seeger, M. 2020. First Report of Bacterial Wilt Caused by *Ralstonia solanacearum* Phylotype IIB Sequevar 1 Affecting Tomato in Different Regions of Chile. *Plant Disease*, 104: 2023. Q1.
12. Jiménez, I., Cádiz, F., Aravena, R., Larach, A., **Besoain, X.**, Ezcurra, E., Rolshausen, P. 2020. First Report of *Diaporthe cynaroidis* and *D. australifricana* Associated with Walnut Branch Canker in Chile. *Plant Disease*, 104: 10. Q1.
13. Tapia, L., Larach, A., Riquelme, N., Guajardo, J., **Besoain, X.** 2020. First Report of *Neofusicoccum luteum* Causing Stem-End Rot Disease on Avocado Fruits in Chile. *Plant Disease*, 104: 2027. Q1.
14. Werner, E., Montenegro, I., Said, B., Godoy-Martínez, P., **Besoain, X.**, Caro, N., Madrid, A. 2020. Synthesis and Anti-Saprolegnia Activity of New 2',4'-Dihydroxydihydrochalcone Derivatives. *Antibiotics*, 9: 317. Q1.
15. Flores, O., Retamales, J., Núñez, M., León, M., Salinas, P., **Besoain, X.**, Yáñez, C., Bastías, R. 2020. Characterization of Bacteriophages against *Pseudomonas syringae* pv. *actinidiae* with Potential Use as Natural Antimicrobials in Kiwifruit Plants. *Microorganisms*, 8: 974. Q2.
16. López, G., Mellado, M., Werner, E., Said, B., Godoy-Marítnez, P., Caro, N., **Besoain, X.**, Montenegro, I., Madrid, A. 2020. Sonochemical Synthesis of 2'-Hydroxy-Chalcone Derivatives with Potential Anti-Oomycete Activity. *Antibiotics*, 9: 576. Q1.
17. Méndez, V., Valenzuela, M., Salvá, F., Jaén-Luchordo, D., **Besoain, X.**, Moore, E.R.B., Seeger, M. 2020. Comparative Genomics of Pathogenic *Clavibacter michiganensis* subsp. *michiganensis* Strains from Chile Reveals Potential Virulence Features for Tomato Plants. *Microorganisms*, 8: 1679. Q2.
18. Montenegro, I., Said, B., Godoy-Martínez, P., **Besoain, X.**, Parra, C., Día, K., Madrid, A. 2020. Antifungal Activity of Essential Oil and Main Components from *Mentha pulegium* Growing Wild on the Chilean Central Coast. *Agronomy*, 10: 254. Q1.
19. Alvarado, L., Saa, S., Cuneo, I.F., 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.
20. Morales, J.A., **Besoain, X.**, Cuneo, I., Saa, S. 2019. Impact of nitrogen fertilization on *Phytophthora cinnamomi* root-related damage in *Juglans regia* samplings. *HortScience* 54: 2188-2194. Q2.

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21. Montenegro, I., Mellado, M., Russo, A., Said, B., **Besoain, X.**, Godoy, P., Werner, E., Caro, N., Madrid, A. 2019. Carveoylphenols and Their Antifungal Potential against Pathogenic Yeasts. *Antibiotics* 8: 185. Q1.
22. **Besoain, X.**, Guajardo, J., Larach, A., Riquelme, N., Galvez, E., Tapia, L., Alvarado, L.E., Saratscheff, T., Celis-Diez, J.L. 2019. First Report of *Diplodia seriata* causing gummy canker in *Araucaria araucana* wild populations in south-central Chile. *Plant Disease* 103: 2684. Q1.
23. Guajardo, J., Riquelme, N., Browne, G., Youlton, C., Castro, M., **Besoain, X.** 2019. Characterization of Oomycete species associated with root and crown rot of English walnut in Chile. *Plant Disease* 103: 691-696. Q1.
24. Valenzuela, M., Méndez, V., Montenegro, I., **Besoain, X.**, Seeger, M. 2019. Streptomycin resistance in *Clavibacter michiganensis* subsp. *michiganensis* strains from Chile is related to an *rpsL* gene mutation. *Plant Pathology* 68: 426-433. Q2.
25. Flores, O., Prince, C., Nunez, M., Vallejos, A., Mardones, C., Yañez, C., **Besoain, X.**, Bastías, R. 2019. Genetic and Phenotypic Characterization of Indole-Producing Isolates of *Pseudomonas syringae* pv. *actinidiae* Obtained from Chilean Kiwifruit Orchards. *Frontiers in Microbiology* 9:1-12. Q2.

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

1. Formulados de nanoemulsiones de exudados vegetales nativos para el control de enfermedades de patógenos asociados a suelo (*Phytophthora cinnamomi*, *fusarium oxysporum* sp. *Lycopersici*, *clavibacter michiganensis* subsp. *Michiganensis*) en nogal y tomate.
Financiamiento: FONDEF IdeA N° ID21I10162
Rol: Co-investigador
Duración: 2021-2023
Año adjudicación: 2021
2. Effects of tissue age and endophytic microbiome of *Botryosphaeria dieback* caused by *Diplodia seriata* in cv. Cabernet Sauvignon in Central Chile, and biocontrol studies in plant.
Financiamiento: FONDECYT regular.
Rol: Directora
Duración: 2021-2024
Año adjudicación: 2021
3. Nuevo Servicio De Detección De Virus Y Viroides Para Determinar La Sanidad De Plantas De Cítricos En Chile.
Financiamiento: Proyecto FIA PYT-2020-0218. Institución Asociada, Comité de Cítricos de Chile, ASOEX
Rol: Directora
Duración: 2020-2024
Año adjudicación: 2020



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4. Consorcio biológico PUCV-VBL para el control de hongos en postcosecha de uvas para exportación.
Financiamiento: I Concurso FONDEF IDeA en dos etapas, Temático en Inocuidad y Calidad Alimentaria-CONICYT, ID17AL0028.
Rol: Directora
Duración: 2017-2019
Año adjudicación: 2017