UNIVERSIDAD DE GRANADA

Máster Universitario en Investigación y Avances en Microbiología

Artículos

(*) Los Autores señalados en las citas han sido alumnos de nuestro máster

2025

- Monteagudo-Cascales E, Lozano-Montoya A (*), Krell T. Pseudomonas aeruginosa performs chemotaxis to the neurotransmitters serotonin, dopamine, epinephrine and norepinephrine. Microb Biotechnol. 2025 May;18(5):e70161.
- Sánchez, P. (*), Castillo, I.(*), Martínez-Checa, F., Sampedro, I., Llamas, I. Pseudomonas halotolerans sp. nov., a halotolerant biocontrol agent with plant-growth properties. Front. Plant Sci. 2025 16, 1605131.

2024

- Amaro-da Cruz A (*), Cabeo M, Durán-Viseras A, Sampedro I, Llamas I. Interference of AHL signal production in the phytophatogen Pantoea agglomerans as a sustainable biological strategy to reduce its virulence. Microbiol Res 2024; 285: 127781
- Arias-Moliz MT, Pérez-Carrasco V, Uroz-Torres D, Santana Ramos JD (*), García-Salcedo JA, Soriano M. Identification of keystone taxa in root canals and periapical lesions of post-treatment endodontic infections: Next generation microbiome research. Int Endod J. 2024; 57(7): 933-942
- Usta SN, Solana C, Ruiz-Linares M, Baca P, Ferrer-Luque CM, Cabeo M (*), Arias-Moliz MT. Effectiveness of conservative instrumentation in root canal disinfection. Clin Oral Investig. 2023 ; 27(6): 3181-3188
- Roca A, Cabeo M, Enguindanos C (*), Martínez-Checa F, Sampedro I, Llamas I. Potential of the quorum-quenching and plant-growth promoting halotolerant Bacillus toyonensis AA1EC1 as biocontrol agent. Microb Biotechnol 2024; 17: e14420
-

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Sorlózano-Puerto A, Cerezo-Collado L (*), Roca-Lagrilliere E (*), Baños-Arjona A, Gutiérrez-Fernández J. Activity of propyl-propane-thiosulfinate and propyl-propane-thiosulfonate against carbapenem-resistant Gram-negative bacteria. APMIS 2024; 132 (8): 581-593

- Ruiz-Fresneda, M A, Morales-Hidalgo, M (*), Povedano-Priego, C, Jroundi, F, Hidalgo-Iruela, J, Cano-Cano, M, Pérez-Muelas, E, Merroun, M L, Martín-Sanchez, I. Unlocking the key role of bentonite fungal isolates in tellurium and selenium bioremediation and biorecovery: Implications in the safety of radioactive waste disposal. Science of The Total Environment 2024; 912: 169242

2023

- Sánchez P (*), Castro-Cegrí A, Sierra S, Garrido D, Llamas I, Sampedro I, Palma F. The synergy of halotolerant PGPB mauran mitigates salt stress in tomato (Solanum lycopersicum) via osmoprotectants accumulation. Physiologia Plantarum 2023; 175: e14111
- Angeles-de Paz G, León-Morcillo R, Guzmán S (*), Robledo-Mahón T, Pozo C, Calvo C, Aranda E. Pharmaceutical active compounds in sewage sludge: Degradation improvement and conversion into an organic amendment by bioaugmentation-composting processes. Waste Manag 2023; 168: 167-178
- Usta SN, Solana C, Ruiz-Linares M, Baca P, Ferrer-Luque CM, Cabeo M (*), Arias-Moliz MT. Effectiveness of conservative instrumentation in root canal disinfection. Clin Oral Investig 2023; 27 (6): 3181-3188
- Xu W, Cerna-Vargas JP, Tajuelo A (*), Lozano-Montoya A (*), Kivoloka M, Krink N, Monteagudo-Cascales E, Matilla MA, Krell T, Sourjik V. Systematic mapping of chemoreceptor specificities for Pseudomonas aeruginosa. mBio 2023; 14 (5): e0209923
- Rabelo-Ruiz M, Peralta-Sánchez JM, Martín-Platero AM, Ruiz AJ (*), Agraso MDM, Bermúdez L, Ariza JJ, Baños A, Valdivia E, Martínez-Bueno M. Allium-derived compound propyl propane thiosulfonate (PTSO) reduces Vibrio populations and increases body weight of european seabass (Dicentrarchus labrax) juveniles. Antibiotics (Basel) 2023; 12 (1): 134

2022

- Siles JA, García-Romera I, Cajthaml T, Belloc J (*), Silva-Castro G, Szaková J, Tlustos P, Garcia-Sanchez M. Application of dry olive residue-based biochar in combination with arbuscular mycorrhizal fungi enhances the microbial status of metal contaminated soils. Sci Rep 2022; 12 (1): 12690
-

Copyright© 2026 Universidad de Granada

López-Moreno A (*), Ruiz-Moreno Á (*), Pardo-Cacho J, Cerk K, Torres-Sánchez A, Ortiz P, Úbeda M, Aguilera M. Culturing and molecular approaches for identifying microbiota taxa impacting children's obesogenic phenotypes related to xenobiotic dietary exposure. Nutrients 2022; 14 (2): 241

- Torres-Sánchez A (*), Ruiz-Rodríguez A, Ortiz P, Moreno MA, Ampatzoglou A, Gruszecka-Kosowska A, Monteoliva-Sánchez M, Aguilera M. Exploring next generation probiotics for metabolic and microbiota dysbiosis linked to xenobiotic exposure: holistic approach. Int J Mol Sci 2022; 23 (21): 12917

- Reina JC, Pérez P (*), Llamas, I. Quorum quenching strains isolated from the microbiota of sea anemones and holothurians attenuate Vibrio corallilyticus virulence factors and reduce mortality in Artemia salina. Microorganisms 2022; 10: 631

- Matilla MA, Velando F, Tajuelo A (*), Martín-Mora D, Xu W, Sourjik V, Gavira J, Krell, T. Chemotaxis of the human pathogen Pseudomonas aeruginosa to the neurotransmitter acetylcholine. mBio 2022; 13 (2): e0345821

2021

- López-Moreno A (*), Torres-Sánchez A (*), Acuña A, Suárez A, Aguilera M. Representative Bacillus sp. AM1 from gut microbiota harbor versatile molecular pathways for bisphenol a biodegradation. Int J Mol Sci 2021; 22 (9): 4952

- López-Moreno A (*), Acuña I, Torres-Sánchez A (*), Ruiz-Moreno A (*), Cerk K, Rivas A, Suárez A, Monteoliva-Sánchez M, Aguilera M. Next generation probiotics for neutralizing obesogenic effects: Taxa culturing searching strategies. Nutrients 2021; 13 (5): 1617

- Cabrera J J, Jiménez-Leiva A, Tomás-Gallardo L, Parejo S**,** Casado S(*), Torres MJ, Bedmar EJ, Delgado MJ, Mesa S. Dissection of FixK2 protein-DNA interaction unveils new insights into Bradyrhizobium diazoefficiens lifestyles control. Environ. Microbiol. 2021; 23: 6194-6209.

- Torres-Sánchez A (*), Pardo-Cacho J, López-Moreno A (*), Ruiz-Moreno A (*), Cerk K, Aguilera M. Antimicrobial effects of potential probiotics of Bacillus spp. isolated from human microbiota: In vitro and in silico methods. Microorganisms 2021; 9 (8): 1615

- Molina L, Udaondo Z, Montero-Curiel M (*), Wittich RM, García-Puente A, Segura A. Clover root exudates favor Novosphingobium sp. HR1a establishment in the rhizosphere and promote phenanthrene rhizoremediation. mSphere 2021; 6 (4): e0041221

2020

Copyright© 2026 Universidad de Granada

- López-Moreno A (*), Suárez A, Avanzi C, Monteoliva-Sánchez M, Aguilera M. Probiotic strains and intervention total doses for modulating obesity-related microbiota dysbiosis: A systematic review and meta-analysis. Nutrients 2020; 12 (7): 1921

- Vega C (*), Rodríguez M, Llamas I, Béjar V, Sampedro I. Silencing of phytopathogen communication by the halotolerant PGPR Staphylococcus equorum strain EN21. Microorganisms 2020; 8 (1): 42

2019

- Fernández M, Rico-Jiménez M, Ortega Á, Daddaoua A, García García AI, Martín-Mora D, Torres NM, Tajuelo A (*), Matilla MA, Krell T. Determination of ligand profiles for Pseudomonas aeruginosa solute binding proteins. Int J Mol Sci 2019; 20 (20): 5156

- Barrientos-Moreno L, Molina-Henares MA, Pastor-García M (*), Ramos-González MI, Espinosa-Urgel M. Arginine biosynthesis modulates pyoverdine production and release in Pseudomonas putida as part of the adaptation mechanism to oxidative stress. J Bacteriol 2019; 201 (22): e00454-19

- Tena-Garitaonaindia M (*), Llamas I, Toral L, Sampedro I. Chemotaxis of halophilic bacterium Halomonas anticariensis FP35 towards the environmental pollutants phenol and naphthalene. Sci Total Environ 2019; 669: 631-636

- Ho-Plágaro T, Molinero-Rosales N, Fariña Flores D (*), Villena Díaz M (*), García-Garrido JM. Identification and expression analysis of GRAS transcription factor genes involved in the control of arbuscular mycorrhizal development in tomato. Front Plant Sci 2019; 10: 268

2018

- Castro DJ, Cerezo I (*), Sampedro I, Martínez-Checa F. Roseovarius ramblicola sp. nov., a moderately halophilic bacterium isolated from saline soil in Spain. Int J Syst Evol Microbiol 2018; 68 (6): 1851-1856

- Rodríguez M (*), Marín A (*), Torres M, Béjar V, Campos M, Sampedro I. Aphicidal activity of surfactants produced by Bacillus atrophaeus L193. Front Microbiol 2018; 9: 3114

- Toral L, Rodríguez M (*), Béjar V, Sampedro I. Antifungal activity of lipopeptides from Bacillus XT1 CECT 8661 against Botrytis cinerea. Front Microbiol 2018; 9:

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1315

- Castellano-Hinojosa A, Maza-Márquez P, Melero-Rubio Y (*), González-López J, Rodelas B. Linking nitrous oxide emissions to population dynamics of nitrifying and denitrifying prokaryotes in four full-scale wastewater treatment plants. Chemosphere 2018; 200: 57-66

- Sorlozano-Puerto A, Albertuz-Crespo M (*), Lopez-Machado I, Ariza-Romero JJ, Baños-Arjona A, Exposito-Ruiz M, Gutierrez-Fernandez J. In Vitro Antibacterial Activity of Propyl-Propane-Thiosulfinate and Propyl-Propane-Thiosulfonate Derived from Allium spp. against Gram-Negative and Gram-Positive Multidrug-Resistant Bacteria Isolated from Human Samples. Biomed Res Int 2018; 2018: 7861207

2017

- Martirani-Von Abercron SM, Marín P, Solsona-Ferraz M (*), Castañeda-Cataña MA, Marqués S. Naphthalene biodegradation under oxygen-limiting conditions: community dynamics and the relevance of biofilm formation capacity. Microb Biotechnol 2017; 10 (6):1781-1796

- Montes N (*), Reina R, Ortiz T, Ocampo JA, García-Romera I, Aranda E. Interactions between phenolic compounds present in dry olive residues and the arbuscular mycorrhizal symbiosis. Mycol Progress 2017; 16 (6): 567–575

- Pacheco-Sánchez D, Molina-Fuentes A, Marín P, Medina-Bellver JI, González-López O (*), Marqués S. Azoarcus anaerobius 1,3-dihydroxybenzene (resorcinol) anaerobic degradation pathway is controlled by the coordinated activity of two sigma-54-dependent regulators. Appl Environ Microbiol 2017; 83 (9): e03042-16

- Sánchez-Castro I, Amador-García A (*), Moreno-Romero C, López-Fernández M, Phrommavanh V, Nos J, Descostes M, Merroun ML. Screening of bacterial strains isolated from uranium mill tailings porewaters for bioremediation purposes. J Environ Radioact 2017; 166 (Pt 1): 130-141

2016

- Martirani-Von Abercron SM, Pacheco D, Benito-Santano P (*), Marín P, Marqués S. Polycyclic aromatic hydrocarbon-induced changes in bacterial community structure under anoxic nitrate reducing conditions. Front Microbiol 2016; 7:1775

- Castellano-Hinojosa A (*), Correa-Galeote D, Palau J, Bedmar EJ. Isolation of N2-fixing rhizobacteria from Lolium perenne and evaluating their plant growth

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promoting traits. J Basic Microbiol 2016; 56(1): 85-91

2015

- Fernández-Sanlés A, Berzal-Herranz B, González-Matamala R (*), Ríos-Marco P, Romero-López C, Berzal-Herranz A. RNA aptamers as molecular tools to study the functionality of the hepatitis C virus CRE region. Molecules 2015; 20: 16030-16047

- Gutiérrez-Fernández J, Luna Del Castillo J de D, Mañanes-González S (*), Carrillo-Ávila JA, Gutiérrez B, Cervilla JA, Sorlózano-Puerto A. Different presence of Chlamydia pneumoniae, herpes simplex virus type 1, human herpes virus 6, and Toxoplasma gondii in schizophrenia: meta-analysis and analytical study. Neuropsychiatr Dis Treat 2015; 11: 843-852

2014

- Lopez-Fernández M, Fernández-Sanfrancisco O, Moreno-García A (*), Martín-Sánchez I, Sánchez-Castro I, Merroun ML. Microbial communities in bentonite formations and their interactions with uranium. Appl Geochem 2014; 49: 77-86

- Sorlózano A, Jiménez-Pacheco A (*), de Dios Luna Del Castillo J, Sampedro A, Martínez-Brocal A, Miranda-Casas C, Navarro-Marí JM, Gutiérrez-Fernández J. Evolution of the resistance to antibiotics of bacteria involved in urinary tract infections: a 7-year surveillance study. Am J Infect Control 2014; 42(10): 1033-1038

2013

- Reina R (*), Liers C, Ocampo JA, García-Romera I, Aranda E. Solid state fermentation of olive mill residues by wood- and dung-dwelling Agaricomycetes: Effect on peroxidase production, biomass development and phenol phytotoxicity. Chemosphere 2013; 93(7): 1406-1412

- Sorlózano A, Cedeño S (*), Gutiérrez-Fernández J, Polo P, Navarro JM. Relevance of the detection of Streptococcus pneumoniae antigen in human urine in the diagnosis of lower respiratory tract infections. Rev Esp Quimioter 2013; 26(1): 39-42

- Torres M (*), Romero M, Prado S, Dubert J, Tahrioui A, Otero A, Llamas I. N-acylhomoserine lactone-degrading bacteria isolated from hatchery bivalve larval cultures. Microbiol Res 2013; 168(9): 547-54

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