

# Curriculum Vitae

## INFORMAZIONI PERSONALI

**Nome** ALESSANDRO  
**Cognome** PRESENTATO  
**E-mail** alessandro.presentato@unipa.it

## FORMAZIONE TITOLI

2019–presently

Researcher in Environmental Microbiology and Biotechnology

Department of Biological, Chemical, and Pharmaceutical Sciences and technologies, University of Palermo, Italy

2015–2019

Postdoctoral fellow at the Department of Biosciences of the University of Calgary (Alberta, Canada)

Postdoctoral fellow at the Biotechnology Department of the University of Verona

2015

PhD in Cellular and Molecular Biology

Department of Pharmacy and Biotechnology, University of Bologna, Italy

2011

Master's degree in Cellular and Molecular Biology

University of Palermo, Italy

2008

Bachelor's degree in Biological Sciences

## PUBBLICAZIONE

1. Vitale, F.; Saladino, M.L.; Armetta, F.; Presentato, A.; Alduina, R.; Mercadante, A.; la Parola, V.; Giacalone, F. New Biocides Based on Imidazolium-Functionalised Hybrid Mesoporous Silica Nanoparticles. *Microporous and Mesoporous Materials* **2022**, *343*, doi:10.1016/J.MICROMESO.2022.112142.
2. Armetta, F.; Cardenas, J.; Caponetti, E.; Alduina, R.; Presentato, A.; Vecchioni, L.; di Stefano, P.; Spinella, A.; Saladino, M.L. Conservation State of Two Paintings in the Santa Margherita Cliff Cave: Role of the Environment and of the Microbial Community. *Environmental Science and Pollution Research* **2022**, *29*, 29510–29523, doi:10.1007/S11356-021-17211-0.
3. Piacenza, E.; Presentato, A.; Alduina, R.; Scurria, A.; Pagliaro, M.; Albanese, L.; Meneguzzo, F.; Ciriminna, R.; Chillura Martino, D.F. Cross-Linked Natural IntegroPectin Films from Citrus Biowaste with Intrinsic Antimicrobial Activity. *Cellulose* **2022**, *29*, 5779–5802, doi:10.1007/S10570-022-04627-1.
4. Baggio, G.; Groves, R.A.; Chignola, R.; Piacenza, E.; Presentato, A.; Lewis, I.A.; Lampis, S.; Vallini, G.; Turner, R.J. Untargeted Metabolomics Investigation on Selenite Reduction to Elemental Selenium by *Bacillus Mycooides* SelTE01. *Front Microbiol* **2021**, *12*, doi:10.3389/FMICB.2021.711000.
5. Scurria, A.; Sciortino, M.; Albanese, L.; Nuzzo, D.; Zabini, F.; Meneguzzo, F.; Alduina, R.; Presentato, A.; Pagliaro, M.; Avellone, G.; et al. Flavonoids in Lemon and Grapefruit IntegroPectin\*\*. *ChemistryOpen* **2021**, *10*, 1055–1058, doi:10.1002/OPEN.202100223.
6. Angellotti, G.; Presentato, A.; Murgia, D.; di Prima, G.; D'Agostino, F.; Scarpaci, A.G.; D'Oca, M.C.; Alduina, R.; Campisi, G.; de Caro, V. Lipid Nanocarriers-Loaded Nanocomposite as a Suitable Platform to Release Antibacterial and Antioxidant Agents for Immediate Dental Implant Placement Restorative Treatment. *Pharmaceutics* **2021**, *13*, doi:10.3390/PHARMACEUTICS13122072.
7. Scurria, A.; Sciortino, M.; Presentato, A.; Lino, C.; Piacenza, E.; Albanese, L.; Zabini, F.; Meneguzzo, F.; Nuzzo, D.; Pagliaro, M.; et al. Volatile Compounds of Lemon and Grapefruit IntegroPectin. *Molecules* **2021**, *26*, doi:10.3390/MOLECULES26010051.
8. Nuzzo, D.; Picone, P.; Giardina, C.; Scordino, M.; Mudò, G.; Pagliaro, M.; Scurria, A.; Meneguzzo, F.; Ilharco, L.M.; Fidalgo, A.; et al. New Neuroprotective Effect of Lemon Integropectin on Neuronal Cellular Model. *Antioxidants* **2021**, *10*, doi:10.3390/ANTIOX10050669.
9. Piacenza, E.; Presentato, A.; Ferrante, F.; Cavallaro, G.; Alduina, R.; Martino, D.F.C. Biogenic Selenium Nanoparticles: A Fine Characterization to Unveil Their Thermodynamic Stability. *Nanomaterials* **2021**, *11*, 1195, doi:https://doi.org/10.3390/nano11051195.
10. Presentato, A.; Piacenza, E.; Turner, R.J. Se Nanoparticle Manufacturing for Medical Applications. *Environmental Technologies to Treat Selenium Pollution* **2021**, 287–322, doi:10.2166/97817890610550289.
11. Sucato, A.; Vecchioni, L.; Savoca, D.; Presentato, A.; Arculeo, M.; Alduina, R. A Comparative Analysis of Aquatic and Polyethylene-Associated Antibiotic-Resistant Microbiota in the Mediterranean Sea. *Biology (Basel)* **2021**, *10*, doi:10.3390/BIOLOGY10030200.
12. Raimondi, M.V.; Presentato, A.; Li Petri, G.; Buttacavoli, M.; Ribaudò, A.; de Caro, V.; Alduina, R.; Cancemi, P. New Synthetic Nitro-Pyrrolomycins as Promising Antibacterial and Anticancer Agents. *Antibiotics* **2020**, *Vol. 9*, Page 292 **2020**, *9*, 292, doi:10.3390/ANTIBIOTICS9060292.

14. Cappelletti, M.; Presentato, A.; Piacenza, E.; Firrincieli, A.; Turner, R.J.; Zannoni, D. Biotechnology of *Rhodococcus* for the Production of Valuable Compounds. *Appl Microbiol Biotechnol* **2020**, *104*, 8567–8594, doi:10.1007/S00253-020-10861-Z.
15. Presentato, A.; Lampis, S.; Vantini, A.; Manea, F.; Daprà, F.; Zuccoli, S.; Vallini, G. On the Ability of Perfluorohexane Sulfonate (PFHxS) Bioaccumulation by Two *Pseudomonas* Sp. Strains Isolated from PFAS-Contaminated Environmental Matrices. *Microorganisms* **2020**, *8*, doi:10.3390/MICROORGANISMS8010092.
16. Presentato, A.; Armetta, F.; Spinella, A.; Chillura Martino, D.F.; Alduina, R.; Saladino, M.L. Formulation of Mesoporous Silica Nanoparticles for Controlled Release of Antimicrobials for Stone Preventive Conservation. *Front Chem* **2020**, *8*, 699, doi:10.3389/FCHEM.2020.00699/BIBTEX.
17. Presentato, A.; Scurria, A.; Albanese, L.; Lino, C.; Sciortino, M.; Pagliaro, M.; Zabini, F.; Meneguzzo, F.; Alduina, R.; Nuzzo, D.; et al. Superior Antibacterial Activity of Integral Lemon Pectin Extracted via Hydrodynamic Cavitation. *ChemistryOpen* **2020**, *9*, 628–630, doi:10.1002/OPEN.202000076.
18. Alduina, R.; Gambino, D.; Presentato, A.; Gentile, A.; Sucato, A.; Savoca, D.; Filippello, S.; Visconti, G.; Caracappa, G.; Vicari, D.; et al. Is *Caretta caretta* a Carrier of Antibiotic Resistance in the Mediterranean Sea? *Antibiotics* **2020**, *9*, doi:10.3390/ANTIBIOTICS9030116.
19. Angellotti, G.; Murgia, D.; Presentato, A.; D'Oca, M.C.; Scarpaci, A.G.; Alduina, R.; Raimondi, M.V.; de Caro, V. Antibacterial PEGylated Solid Lipid Microparticles for Cosmeceutical Purpose: Formulation, Characterization, and Efficacy Evaluation. *Materials* **2020**, *13*, doi:10.3390/MA13092073.
20. Ciriminna, R.; Fidalgo, A.; Meneguzzo, F.; Presentato, A.; Scurria, A.; Nuzzo, D.; Alduina, R.; Ilharco, L.M.; Pagliaro, M. Pectin: A Long-Neglected Broad-Spectrum Antibacterial. *ChemMedChem* **2020**, *15*, 2228–2235, doi:10.1002/CMDC.202000518.
21. Saladino, M.L.; Markowska, M.; Carmone, C.; Cancemi, P.; Alduina, R.; Presentato, A.; Scaffaro, R.; Biay, D.; Hasiak, M.; Hreniak, D.; et al. Graphene Oxide Carboxymethylcellulose Nanocomposite for Dressing Materials. *Materials* **2020**, *13*, doi:10.3390/MA13081980.
22. Presentato, A.; Piacenza, E.; Turner, R.J.; Zannoni, D.; Cappelletti, M. Processing of Metals and Metalloids by Actinobacteria: Cell Resistance Mechanisms and Synthesis of Metal(Loid)-Based Nanostructures. *Microorganisms* **2020**, *8*, 2027, doi:https://doi.org/10.3390/microorganisms8122027.
23. Piacenza, E.; Presentato, A.; di Salvo, F.; Alduina, R.; Ferrara, V.; Minore, V.; Giannusa, A.; Sancataldo, G.; Chillura Martino, D.F. A Combined Physical–Chemical and Microbiological Approach to Unveil the Fabrication, Provenance, and State of Conservation of the Kinkarakawa-Gami Art. *Sci. Rep.* **2020**, *10*, 16072, doi:https://doi.org/10.1038/s41598-020-73226-6.
24. Presentato, A.; Piacenza, E.; Scurria, A.; Albanese, L.; Zabini, F.; Meneguzzo, F.; Nuzzo, D.; Pagliaro, M.; Martino, D.C.; Alduina, R.; et al. A New Water-Soluble Bactericidal Agent for the Treatment of Infections Caused by Gram-Positive and Gram-Negative Bacterial Strains. *Antibiotics* **2020**, *9*, 1–15, doi:https://doi.org/10.3390/antibiotics9090586.
25. Presentato, A.; Piacenza, E.; Cappelletti, M.; Turner, R.J. Interaction of *Rhodococcus* with Metals and Biotechnological Applications. **2019**, 333–357, doi:10.1007/978-3-030-11461-912.
26. Piacenza, E.; Presentato, A.; Bardelli, M.; Lampis, S.; Vallini, G.; Turner, R.J. Influence of Bacterial Physiology on Processing of Selenite, Biogenesis of Nanomaterials and Their Thermodynamic Stability. *Molecules* **2019**, *24*, doi:10.3390/

27. Presentato, A.; Turner, R.J.; Vásquez, C.C.; Yurkov, V.; Zannoni, D. Tellurite-Dependent Blackening of Bacteria Emerges from the Dark Ages. *Environ. Chem.* **2019**, *16*, 266–288, doi:<https://doi.org/10.1071/EN18238>.
28. Piacenza, E.; Presentato, A.; Bardelli, M.; Lampis, S.; Vallini, G.; Turner, R.J. Influence of Bacterial Physiology on Processing of Selenite, Biogenesis of Nanomaterials and Their Thermodynamic Stability. *Molecules* **2019**, *24*, 2532, doi:<https://doi.org/10.3390/molecules24142532>.
29. Presentato, A.; Piacenza, E.; Darbandi, A.; Anikovskiy, M.; Cappelletti, M.; Zannoni, D.; Turner, R.J. Assembly, Growth and Conductive Properties of Tellurium Nanorods Produced by *Rhodococcus Aetherivorans* BCP1. *Scientific Reports* **2018**, *8*:1 **2018**, 8, 1–10, doi:[10.1038/s41598-018-22320-x](https://doi.org/10.1038/s41598-018-22320-x).
30. Piacenza, E.; Presentato, A.; Turner, R.J. Stability of Biogenic Metal(Loid) Nanomaterials Related to the Colloidal Stabilization Theory of Chemical Nanostructures. *Crit Rev Biotechnol* **2018**, *38*, 1137–1156, doi:[10.1080/07388551.2018.1440525](https://doi.org/10.1080/07388551.2018.1440525).
31. Presentato, A.; Piacenza, E.; Anikovskiy, M.; Cappelletti, M.; Zannoni, D.; Turner, R.J. Biosynthesis of Selenium-Nanoparticles and -Nanorods as a Product of Selenite Bioconversion by the Aerobic Bacterium *Rhodococcus Aetherivorans* BCP1. *N Biotechnol* **2018**, *41*, 1–8, doi:[10.1016/J.NBT.2017.11.002](https://doi.org/10.1016/J.NBT.2017.11.002).
32. Piacenza, E.; Presentato, A.; Ambrosi, E.; Speghini, A.; Turner, R.J.; Vallini, G.; Lampis, S. Physical–Chemical Properties of Biogenic Selenium Nanostructures Produced by *Stenotrophomonas Maltophilia* SeTE02 and *Ochrobactrum* Sp. MPV1. *Front Microbiol* **2018**, *9*, 3178, doi:[10.3389/FMICB.2018.03178/BIBTEX](https://doi.org/10.3389/FMICB.2018.03178/BIBTEX).
33. Presentato, A.; Cappelletti, M.; Sansone, A.; Ferreri, C.; Piacenza, E.; Demeter, M.A.; Crognale, S.; Petruccioli, M.; Milazzo, G.; Fedi, S.; et al. Aerobic Growth of *Rhodococcus Aetherivorans* BCP1 Using Selected Naphthenic Acids as the Sole Carbon and Energy Sources. *Front Microbiol* **2018**, *9*, 672, doi:[10.3389/FMICB.2018.00672/BIBTEX](https://doi.org/10.3389/FMICB.2018.00672/BIBTEX).
34. Piacenza, E.; Presentato, A.; Zonaro, E.; Lampis, S.; Vallini, G.; Turner, R.J. Selenium and Tellurium Nanomaterials. *Phys. Sci. Rev.* **2018**, *3*, 20170100, doi:<https://doi.org/10.1515/psr-2017-0100>.
35. Piacenza, E.; Presentato, A.; Zonaro, E.; Silvia Lampis; Vallini, G.; Turner, R.J. Microbial-Based Bioremediation of Selenium and Tellurium Compounds. *Biosorption* **2017**, doi:[10.5772/INTECHOPEN.72096](https://doi.org/10.5772/INTECHOPEN.72096).
36. Piacenza, E.; Presentato, A.; Zonaro, E.; Lemire, J.A.; Demeter, M.; Vallini, G.; Turner, R.J.; Lampis, S. Antimicrobial Activity of Biogenically Produced Spherical Se-Nanomaterials Embedded in Organic Material against *Pseudomonas Aeruginosa* and *Staphylococcus Aureus* Strains on Hydroxyapatite-Coated Surfaces. *Microb Biotechnol* **2017**, *10*, 804–818, doi:[10.1111/1751-7915.12700](https://doi.org/10.1111/1751-7915.12700).
37. Zonaro, E.; Piacenza, E.; Presentato, A.; Monti, F.; Dell'Anna, R.; Lampis, S.; Vallini, G. *Ochrobactrum* Sp. MPV1 from a Dump of Roasted Pyrites Can Be Exploited as Bacterial Catalyst for the Biogenesis of Selenium and Tellurium Nanoparticles. *Microb. Cell Fact.* **2017**, *16*, 1–17, doi:<https://doi.org/10.1186/s12934-017-0826-2>.
38. Presentato, A.; Piacenza, E.; Anikovskiy, M.; Cappelletti, M.; Zannoni, D.; Turner, R.J. *Rhodococcus Aetherivorans* BCP1 as Cell Factory for the Production of Intracellular Tellurium Nanorods under Aerobic Conditions. *Microb. Cell Fact.* **2016**, *15*, 204, doi:<https://doi.org/10.1186/s12934-016-0602-8>.
39. Cappelletti, M.; Presentato, A.; Milazzo, G.; Turner, R.J.; Fedi, S.; Frascari, D.; Zannoni, D. Growth of *Rhodococcus* Sp. Strain BCP1 on Gaseous n-Alkanes: New Metabolic Insights and Transcriptional Analysis of Two Soluble Di-Iron Monooxygenase Genes. *Front Microbiol* **2015**, *6*, 393, doi:[10.3389/FMICB.2015.00393/ABSTRACT](https://doi.org/10.3389/FMICB.2015.00393/ABSTRACT).

40. Orro, A.; Cappelletti, M.; D'Ursi, P.; Milanesi, L.; di Canito, A.; Zampolli, J.; Collina, E.; Decorosi, F.; Viti, C.; Fedi, S.; et al. Genome and Phenotype Microarray Analyses of *Rhodococcus* Sp. BCP1 and *Rhodococcus* Opacus R7: Genetic Determinants and Metabolic Abilities with Environmental Relevance. *PLoS One* **2015**, *10*, doi:10.1371/JOURNAL.PONE.0139467.

41. Cappelletti, M.; di Gennaro, P.; D'Ursi, P.; Orro, A.; Mezzelani, A.; Landini, M.; Fedi, S.; Frascari, D.; Presentato, A.; Zannoni, D.; et al. Genome Sequence of *Rhodococcus* Sp. Strain BCP1, a Biodegrader of Alkanes and Chlorinated Compounds. *Genome Announc* **2013**, *1*, doi:10.1128/GENOMEA.E00657-13.