

BIOGRAPHICAL SKETCH – Marcello Tagliavia

Marcello Tagliavia (born 11/09/1976 in Palermo) has taken the diploma in "Biology" at the Faculty of Science Palermo, with a specialization in Molecular Biology (09/03/2001; Thesis entitled "Analysis of repeated sequences in streptomycetes"). He has acquired the title of PhD in "Cellular Biology" at the Faculty of Science of Palermo with the discussion (17/02/2005) of his PhD Thesis entitled "Intragenic terminators, transcripts stability and polarity in ϕ 1 bacteriophage". Between 2004 and 2006 he joined CRA (Agricultural Research Council), working in the microbiological area, using both culture dependent and molecular techniques to study microbial communities; he isolated several bacterial and yeast strains, he contributed to the genetic characterization of new hybrid olive accessions by molecular markers analysis and acquired experience in characterization of mycorrhizal fungi and in plant propagation and micropropagation.

Between 2006 and 2010 he worked as Postdoc at DBCS of University of Palermo in the project "Genotyping of sicilian flora" and in other projects dealing with the study of gene expression in bacteria, focusing on relationships between translation and mRNA metabolism.

Since 2011 joined a biotech company, working in the field of applied biotechnologies, genetic analyses and molecular diagnostics.

Since 2013 he joined CNR (Institute of Biosciences and Bioresources) and, since 2014, Institute for Marine and Coastal Environment.

From 2005 to 2011 he has been contract professor of Applied Microbiology and Laboratory of Genetics at the Faculty of Sciences of the University of Palermo. Moreover, he has been co-tutor and co-relator of several Diploma Thesis in Biology and Biotechnology.

He published 6 articles in scientific journals, 3 articles in proceedings of congresses and a book chapter. He presented 9 communications at national and international congresses.

Institute for Coastal Marine Environment

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CURRENT POSITION

Researcher, IAMC-CNR, Torretta Granitola (TP), Italy, since 2014

Education

2006-2010 Post Doc at Dept of Cell and Developmental Biology, University of Palermo, Palermo, Italy

2004-2006 Post Doc at Research Council for Agriculture

2004 Ph.D., Cell and developmental biology, University of Palermo, Palermo, Italy

2001 License to practice as Biologist, University of Palermo, Palermo, Italy

2001 Degree in Biology cum laude, University of Palermo, Palermo, Italy

Research Interest

Microbial activity in geothermal and volcanic areas. Characterisation of natural microbial communities by molecular methods (including NGS). Molecular traceability of seafood.

Biotechnology applied to environmental microbial communities.

Genetics, molecular biology and Biotechnological applications.

MAIN SUBJECTS AND SKILLS

Environmental microbiology and microbial ecology. Isolation of environmental microorganisms. Analysis of environmental microbial communities. DNA and RNA analysis. Analysis of gene expression. Genetic engineering of microorganisms.

Teaching experience

- 2005- 2009 Contract Professor of "Laboratory of Genetics", University of Palermo, Italy;
2006-2011 Contract Professor of "Applied Microbiology", University of Palermo, Italy;
2016 Professor of "Microbiology" in a Master for "Expert in environmental Analyses", IAMC-CNR, Italy
2016 Professor of "Elements of Genomics" in a Master in "Proteomics and Metabolomics", IAMC-CNR, Italy
2016 Professor of "Plant Genomics" in a Master in "Genomics", IAMC-CNR, Italy
2006-present Cotutor of several degree thesis (University of Palermo)

Recent Research Articles

- Nicosia A, Maggio T, Costa S, Salamone M, **Tagliavia M**, Mazzola S, Gianguzza F, Cuttitta A. Maintenance of a Protein Structure in the Dynamic Evolution of TIMPs over 600 Million Years. *Genome Biol Evol.* 2016 13;8(4):1056-71.
- Bulati M, Longo A, Masullo T, Vlah S, Bennici C, Bonura A, Salamone M, **Tagliavia M**, Nicosia A, Mazzola S, Colombo P, Cuttitta A. Partially Purified Extracts of Sea Anemone *Anemonia viridis* Affect the Growth and Viability of Selected Tumour Cell Lines. *Biomed Res Int.* 2016;2016:3849897.
- Tagliavia M**, Cuttitta A. 2016 Exploiting translational coupling for the selection of cells producing toxic recombinant proteins from expression vectors. *Biotechniques* 60(3):113-8. doi: 10.2144/000114387.
- Tagliavia M**, Nicosia A, Salamone M, Biondo G, Bennici CD, Mazzola S, Cuttitta A. 2016 Development of a fast DNA extraction method for sea food and marine species identification. *Food Chem.* 203:375-8. doi: 10.1016/j.foodchem.2016.02.095.
- Nicosia A, Costa S, **Tagliavia M**, Maggio T, Salamone M, Adamo G, Ragusa MA, Bennici C, Masullo T, Mazzola S, Gianguzza F, Cuttitta A. 2016 The nucleic acid-binding protein PcCNBP is transcriptionally regulated during the immune response in red swamp crayfish *Procambarus clarkii*. *Cell Stress Chaperones* 21(3):535-46. doi: 10.1007/s12192-016-0681-9.
- Gagliano A.L., **Tagliavia M.**, D'Alessandro W., Franzetti A., Parello F., Quatrini P. (2016) So close, so different: geothermal flux shapes divergent soil microbial communities at neighbouring sites. *Geobiology* 14, 150–162, doi: 10.1111/gbi.12167
- Gagliano A.L., D'Alessandro W., **Tagliavia M.**, Parello F., and Quatrini P. 2014 Methanotrophic activity and diversity of methanotrophs in volcanic-geothermal soils at Pantelleria island (Italy) *Biogeosciences*, 11, 5865–5875, 2014 www.biogeosciences.net/11/5865/2014/ doi:10.5194/bg-11-5865-2014
- Tagliavia M**, Messina E, Manachini BI, Cappello S and Quatrini P. 2014 The gut microbiota of larvae of *Rhynchophorus ferrugineus* Oliver (Coleoptera:Curculionidae). *BMC Microbiology* 14:136 DOI: 10.1186/1471-2180-14-136
- Masullo T, Puccio R, Di Pierro M, **Tagliavia M**, Censi P, Vetri V, Militello V, Cuttitta A, Colombo P. 2014 Development of a biosensor for copper detection in aqueous solutions using an *Anemonia sulcata* recombinant GFP. *Appl Biochem Biotechnol.* 172(4):2175-87. doi: 10.1007/s12010-013-0669-1.