

## **Marco Bazzicalupo CV**

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### **Positions and Employment**

1975 -1985: Research associate, Institute of Genetics, University of Florence.  
1986 -1987: Visiting Scientist, Department of Microbiology, University of Guelph, Canada.  
1987 - 2000: Associate Professor of Microbial Genetics, University of Florence.  
2001 - Present: Full Professor of Genetics, University of Florence  
2001 – 2008: President, Faculty of Biotechnology Degree, University of Florence  
2013 - 2016: Director, Department of Biology, University of Florence

### **Other Experience and Professional Memberships**

1980 – Present Member, SIMGBM (Italian Society for General Microbiology and Microbial Biotechnology).  
1990 – 1992 SIMGBM, Board of Directors  
1985 – Present Member, AGI (Italian Society of Genetics);  
1999 - 2001 and 2009 – 2012:  
AGI member of the Board of Directors,  
1998 – Present Member, ISME (International Society of Microbial Ecology)  
2002 - Present ISME “Ambassador”  
1999 President, 6th Symposium on Bacterial Genetics and Ecology – BAGECO 6  
1999 – Present Member, BAGECO Symposia Scientific committee.  
1999 Member of International Advisory Committee, 12th International Congress on N<sub>2</sub> Fixation (Iguaçu, Brazil, September 1999)  
2009 – Present Editor, Annals of Microbiology  
2009 – Present Editor, BioMed Research International  
2017 Editor, Microbiome

### **Research Fields:**

- Molecular genetics and physiology of symbiotic nitrogen fixing bacteria; genetics and genomics of *Sinorhizobium*.
- Molecular microbial ecology and evolution of soil bacteria.
- Population genetics of plants associated, rhizospheric and endophytic bacteria.

Author of more than 100 peer-reviewed publications

List of recent publications (from 2013)

**Marco Galardini; Francesco Pini; Marco Bazzicalupo; Emanuele G. Biondi; Alessio Mengoni (2013)** Replicon-dependent bacterial genome evolution: the case of *Sinorhizobium meliloti*. **Genome Biology and Evolution** no. 3 : 542-558; doi: 10.1093/gbe/evt027

**F.Pini, B.Frage, L.Ferri, N.J.De Nisco, S.Mohapatra, L.Taddei, A.Fioravanti, F.Dewitte, M.Galardini, M.Brilli, V.Villeret, M.Bazzicalupo, A.Mengoni, G.C.Walker, A.Becker, E.G.Biondi (2013)**. The DivJ, CbrA and PleC system controls DivK phosphorylation and symbiosis in *Sinorhizobium meliloti*. **Molecular microbiology**, vol. 90, pp. 54-71, ISSN:0950-382X

**M. Galardini, M. Bazzicalupo, E. Biondi, E. Brambilla, M. Brilli, D. Bruce, P. Chain, A. Chen, H. Daligault, K. W. Davenport, S. Deshpande, J. C. Detter, L. A. Goodwin, C. Han, J. Han, M. Huntemann, N. Ivanova, H. Klenk, N. C. Kyrpides, V. Markowitz, K. Mavrommatis, S. Mocali, M. Nolan, I. Pagani, A. Pati, F. Pini, S. Pitluck, G. Spini, E. Szeto, H. Teshima, T. Woyke, A. Mengoni (2013)**. Permanent draft genome sequences of the symbiotic nitrogen fixing Ensifer meliloti strains BO21CC and AK58. **Standards in Genomic Sciences**, vol. 9, pp. 0-0, ISSN:1944-3277

**A.Mengoni, M.Bazzicalupo, E. Giuntini, F.Pini, E.G.Biondi (2013)**. Genomic and Functional Diversity of the Sinorhizobial Model Group. In: R.Aroca. **Symbiotic Endophytes**, pp. 69-85, Berlino: Springer-Verlag, ISBN:9783642393167.

**M.Galardini, A.Mengoni, E.G.Biondi, R.Semeraro, A.Florio, M.Bazzicalupo, A.Benedetti, S.Mocali (2014)**. DuctApe: a suite for the analysis and correlation of genomes and Omnilog<sup>TM</sup> Phenotype Microarray data. **Genomics**, vol. 104, pp. 1-10, ISSN:0888-7543

**Giovanni Bacci, Marco Bazzicalupo, Anna Benedetti, Alessio Mengoni (2014)**. StreamingTrim 1.0: a Java software for dynamic trimming of 16SrRNA sequence data from metagenetic studies. **Molecular Ecology Resources**, vol. 14, pp. 426-434.

**Francesca Donnarumma, Marco Bazzicalupo, Mihaela Blažinkov, Alessio Mengoni, Sanja Sikora, Katarina Huić Babić (2014)**. Biogeography of *Sinorhizobium meliloti* nodulating alfalfa in different Croatian regions. **Research in Microbiology**. vol. 165 (7): 508-516.

**Francesco Pini, Giulia Spini, Marco Galardini, Marco Bazzicalupo, Anna Benedetti, Manuela Chianciani, Alessandro Florio, Alessandra Lagomarsino, Melania Migliore, Stefano Mocali, Alessio Mengoni (2014)** . Molecular phylogeny of the nickel-resistance gene *nreB* and functional role in the nickel sensitive symbiotic nitrogen fixing bacterium *Sinorhizobium meliloti*. **Plant Soil** . 377:189–201

**Giovanni Bacci, Alessia Bani, Marco Bazzicalupo, Maria Teresa Ceccherini, Marco Galardini, Paolo Nannipieri, Giacomo Pietramellara, Alessio Mengoni (2015)**. Evaluation of the Performances of Ribosomal Database Project (RDP) Classifier for Taxonomic Assignment of 16S rRNA Metabarcoding Sequences Generated from Illumina-Solexa NGS. **J. Genomics**; 3: 36-39. doi:10.7150/jgen.9204

Dwivedi S., Sahrawat K., Upadhyaya H.D., Mengoni A., Galardini M., Bazzicalupo M., Biondi E.G., Hungria M., Kaschuk G., Blair M., Ortiz R. (2015) Advances in Host Plant and Rhizobium Genomics to Enhance Symbiotic Nitrogen Fixation in Grain Legumes. *Advances in Agronomy* 129: 1-116

M.Golanowska, M.Galardini, M.Bazzicalupo, N.Hugouvieux-Cotte-Pattat, A.Mengoni, M.Potrykus, M.Slawiak, E.Lojkowska (2015). Draft genome sequence of a highly virulent strain of the plant pathogen *Dickeya solani*, IFB0099. *GENOME ANNOUNCEMENTS*, vol. 3, p. e00109-15, ISSN: 2169-8287, doi: 10.1128/genomeA.00109-15

G.Bacci, M.T.Ceccherini, A.Bani, M.Bazzicalupo, M.Castaldini, M. Galardini, L.Giovannetti, S.Mocali, R.Pastorelli, O.L. Pantani, P. Arfaoli, G. Pietramellara, C.Viti, P.Nannipieri, A.Mengoni (2015). Exploring the dynamics of bacterial community composition in soil: the pan-bacteriome approach. *ANTONIE VAN LEEUWENHOEK*, vol. 107, p. 785-797, ISSN: 0003-6072, doi: 10.1007/s10482-014-0372-4

Galardini, Marco; Mengoni, Alessio; Bazzicalupo, Marco (2015). Mapping contigs using CONTIGuator. *Methods in molecular biology* (Clifton, N.J.) Volume: 1231 Pages: 163-76

Marco Galardini, Matteo Brilli, Giulia Spini, Matteo Rossi, Bianca Roncaglia, Alessia Bani, Manuela Chiancianesi, Marco Moretto, Kristof Engelen, Giovanni Bacci, Francesco Pini, Emanuele G. Biondi, Marco Bazzicalupo, Alessio Mengoni (2015). Evolution of Intra-specific Regulatory Networks in a Multipartite Bacterial Genome. *PLoS Comput Biol* 11(9):e1004478. doi:10.1371/journal.pcbi.1004478

Pini F, De Nisco NJ, Ferri L, Penterman J, Fioravanti A, Brilli M, Mengoni A, Bazzicalupo M, Viollier P, Walker GC, Biondi EG (2015). Cell Cycle Control by the Master Regulator CtrA in *Sinorhizobium meliloti*. *PLoS Genet* 11(5): e1005232. doi:10.1371/journal.pgen.1005232

George C. diCenzo, Alice Checcucci, Marco Bazzicalupo, Alessio Mengoni, Carlo Viti, Lukasz Dziewit, Turlough M. Finan, Marco Galardini & Marco Fondi. (2016) .Metabolic modelling reveals the specialization of secondary replicons for niche adaptation in *Sinorhizobium meliloti* *Nature Communications* , 7, 12219. doi:10.1038/ncomms12219

Checcucci, Alice; Azzarello, Elisa; Bazzicalupo, Marco; Galardini, Marco; Lagomarsino, Alessandra; Mancuso, Stefano; Marti, Lucia; Marzano, Maria C.; Mocali, Stefano; Squartini, Andrea; Zanardo, Marina; Mengoni, Alessio (2016). Mixed Nodule Infection in *Sinorhizobium meliloti*-*Medicago sativa* Symbiosis Suggest the Presence of Cheating Behavior. *FRONTIERS IN PLANT SCIENCE*, vol. 7, pp. 0-0, ISSN:1664-462X

Checcucci A, Azzarello E, Bazzicalupo M, De Carlo A, Emiliani G, Mancuso S, Spini G, Viti C and Mengoni A (2017) Role and Regulation of ACC Deaminase Gene in *Sinorhizobium meliloti*: Is It a Symbiotic, Rhizospheric or Endophytic Gene?. *Front. Genet.* 8:6. doi: 10.3389/fgene.2017.00006