RENATO FANI

Education and training

1979 Degree in Biological Sciences awarded Summa Cum Laude – University of Florence 1979 Scholarship holder – Molecular genetics – Accademia Nazionale dell'Agricoltura 1988 PhD in Genetics – University of Florence

Work experience

1986-1990 Teacher (secondary school) of mathematics, chemistry, physics, and natural sciences 1990-2003 Researcher of Genetics, Faculty of Mathematical, Physical and Natural Sciences, University of Florence, Florence, Italy

2003-2018 Associate Professor of Genetics, Department of Biology, School of Mathematical, Physical and Natural Sciences, University of Florence, Florence, Italy

2018-present Full Professor of Genetics, Department of Biology, School of Mathematical, Physical and Natural Sciences, University of Florence, Florence, Italy

Research activity

Scientific CV

Renato Fani is director of the Laboratory of Microbial and Molecular Evolution at University of Florence. His main scientific interests include (i) the analysis of the molecular mechanisms shaping the evolution of genes, genomes, and metabolic routes; (ii) the characterization of microbial communities isolated from natural environments, with a main focus on those able to produce antibiotics, antivirals, and antitumorals and capable of degrading xenobiotic compounds; (iii) isolation of new antibiotics produced by bacteria isolated from extreme environments (such as Antarctica) and medicinal plants; (iv) development of software for bioinformatic analyses and metabolic modelling.

Keywords

Antibiotic resistance; bacterial genetics; endophytes; environmental microbiology; gene and genome evolution; molecular evolution

Bibliography and bibliometry

- L. Romeo, A. Esposito, A. Bernacchi, D. Colazzo, A. Vassallo, M. Zaccaroni, R. Fani, S. Del Duca (2023). Application of cloning-free genome engineering to *Escherichia coli*. Microorganisms 11: 215.
- C. Rizzo; E. Perrin; A. Poli; I. Finore; R. Fani; A. Lo Giudice (2022). Characterization of the exopolymer-producing *Pseudoalteromonas* sp. S8-8 from Antarctic sediment. Applied Microbiology and Biotechnology 106: 7173-7185.
- L. Cangioli; M. Salobehaj; S. Del Duca; C. Fagorzi; C. Berardi; E. Coppini; D. Fibbi; R. Fani; A. Vassallo (2022). Effect of Wastewater on the Composition of Bacterial Microbiota of *Phragmites australis* Used in Constructed Wetlands for Phytodepuration. Plants 11: 3210.
- T. Faddetta, A. Vassallo, S. Del Duca, G. Gallo, R. Fani, A.M. Puglia (2022). Unravelling the DNA sequences carried by *Streptomyces coelicolor* membrane vesicles. Scientific Reports 12: 16651.

- G. Bacci; A. Mengoni; G. Emiliani; C. Chiellini; E.G. Cipriani; G. Bianconi; F. Canganella; R. Fani (2021). Defining the resilience of the human salivary microbiota by a 520-day longitudinal study in a confined environment: the Mars500 mission. Microbiome 9: 152.
- L. Gammuto; C. Chiellini; M. Iozzo; R. Fani; G. Petroni (2021). The Azurin Coding Gene: Origin and Phylogenetic Distribution. Microorganisms 10: 9.
- E. Parrilli; P. Tedesco; M. Fondi; M.L. Tutino; A. Lo Giudice; D. de Pascale; R. Fani (2021). The art of adapting to extreme environments: The model system *Pseudoalteromonas*. Physics of Life Reviews 36: 137-161.