


Silvia Tabacchioni




## PERSONAL INFORMATION

 ENEA-C.R. Casaccia- Department for Sustainability-Division Biotechnologies and Agroindustry  
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 [Scopus Author ID: 55965847500](#)

Sex Female | Date of birth 13/10/1962 | Nationality Italy

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input checked="" type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

## WORK EXPERIENCE

1989 to present

### Researcher

ENEA CR Casaccia

Main activities: Development of microbial consortia as biostimulants to improve the growth of crop plants. Biocoverion of space organic wastes into nutrients to support the growth of microgreens under space conditions. Assessment of microbial diversity in soil, rhizosphere, lotic environment and digestate from biogas plants. Molecular and phenotypic characterization of environmental and clinical *B. cepacia* complex isolates. Isolation of hydrogen producing bacteria from anossic lake sediments. Biological hydrogen production from pure and mixed cultures. Biomethane production from agroindustrial wastes. Plant growth promotion and biocontrol activity of plant grow promoting rhizobacteria (PGPR). Microbial interactions in the rhizosphere. Isolation of *Burkholderia cepacia* complex bacteria from maize rhizosphere. Treatment of liquid waste from food industry: production of lactic acid from whey ultrafiltrate.

1988-1989

### Fellowship

ENEA CR Casaccia

Microbial degradation of chemical wastes.

1987-1988

### Internship

Microbiology Institute, Medicine and Surgery Faculty, Sapienza

University of Rome

Characterization of virulence plasmids in enteroinvasive *Escherichia coli* (EIEC) strains.

## EDUCATION AND TRAINING

10/10/2005 – 12/10/2005

### Training course

Replace with EQF  
 (or other) level if  
 relevant

12/03/2005 – 16/03/2005	ICGEB Biosafety Outstation- Ca'Tron di Roncade, Treviso, Italy Interaction of bacteria with rice plants <b>Training course</b> European School of Genetic Medicine, Bertinoro di Romagna (Italia) 1st Course in Technologies and Genomics of Microbial Hydrogen Production
14/04/2004	<b>Training course</b> Istituto Superiore di Sanità, Rome, Italy Aggiornamento in anaerobiosi
08/11/1989 – 10/11/1989	<b>Training course</b> Università Cattolica del Sacro Cuore, Facoltà di Medicina e Chirurgia, Rome (Italy) GC-LC theoretical and practical course
09/1989	<b>Training course</b> University of Bologna (Dip. Chimica Industriale e dei Materiali, Dip. di Ingegneria Chimica e di Processo) and Italian School of Biotechnology, Mantova (Italy) Physiology, genetic and technology of industrial fermentations
1987-1988	<b>Biotechnologist title</b> (L.R. n. 14 6/4/78, L.Q. n. 845 21/12 78) University of Rome "La Sapienza"
1986	<b>Degree in Biological Sciences</b> University of Rome "La Sapienza"

#### WORK ACTIVITIES

<b>Editorial activity</b>	Editorial Board Member of Sustainability journal (MDPI). Reviewer for several international scientific journals with impact factor. Tutoring activity for undergraduate, graduate, PhD and postdoc researchers. Teaching activity for projects training courses and at the University.
<b>Invited presentations</b>	Design of microbial consortia with plant growth promoting activity for sustainable crop production NANODAYS IV, 11-14 December 2019, Milan (Italy). Space organic waste degradation: a new approach to microgreens cultivation. Melissa Conference 2022, 8-10 November 2022, Toulouse (France)

#### PERSONAL SKILLS

Mother tongue(s)	Italian
Other language(s)	English (Listening B1, Writing and Reading C1)
Job-related skills	Good communication and planning/managerial skills gained through the experience as speaker at conferences and project meetings/participant at several research projects
Digital skills	Competent with most Microsoft Office Programmes (Excel, Word, Power point), Statistical software ANOVA software, Bioinformatics software for DNA sequence assembly (DNA Baser Assembler)

#### ADDITIONAL INFORMATION

**Publications** Total number of publications in peer-review journals 43  
 total number of citations 2,050  
 H index 24

Pirone L., Chiarini L., Dalmastrì C., Bevivino A., Tabacchioni S. (2005) Detection of cultured and uncultured Burkholderia cepacia complex bacteria naturally occurring in the maize rhizosphere. *Env Microbiol* 7:1734-1742. doi: 10.1111/j.1462-2920.2005.00897.x  
 Chiarini L., Bevivino A., Dalmastrì C., Tabacchioni S., Visca P. (2006) Burkholderia cepacia complex species: health hazards and biotechnological potential. *Trends in Microbiol* 14:277-286. doi: 10.1016/j.tim.2006.04.006  
 Aldrovandi A., Marsili E., Stante L., Paganin P., Tabacchioni S., Giordano A. (2009) Sustainable power production in a membrane-less and mediator-less synthetic wastewater microbial fuel cell. *BioresTechnol* 100:3252-3260. doi: 10.1016/j.biortech.2009.01.041  
 Paganin P., Chiarini L., Bevivino A., Dalmastrì C., Farcomeni A., Izzo G., Signorini A., Varrone C., Tabacchioni S. (2013) Vertical distribution of bacterioplankton in Lake Averno in relation to water chemistry. *FEMS Microbiol Ecol* 84:176-188. doi:10.1111/1574-6941.1204  
 Koutika L.-S., Fiore A., Tabacchioni S., Aprea G., Pereira A.P.A., Bevivino A. (2020) Influence of acacia mangium on soil fertility and bacterial community in eucalyptus plantations in the congolese coastal plains. *Sustainability* 12:1-21. doi: 10.3390/su12218763  
 Tabacchioni S., Passato S., Ambrosino P., Huang L., Caldara M., Cantale C., Hett J., Del Fiore A., Fiore A, Schlüter A., Sczyrba A. Maestri E., Marmiroli N., Neuhoff D., Nesme J., Sørensen S.J., Aprea G., Nobili C., Presenti O., Giovannetti G., Giovannetti C., Pihlanto A., Brunori A., Bevivino, A. (2021). Identification of beneficial microbial consortia and bioactive compounds with potential as plant biostimulants for a sustainable agriculture. *Microorganisms* 9: 1-23. doi:10.3390/microorganisms9020426

**Projects** Sustainable innovation of microbiome application in food system (SIMBA). H2020. Grant agreement:818431. (01/11/2018-31/10/2023). Participant  
 In situ Resource Bio-Utilization per il supporto alla vita nello Spazio (REBUS). Agenzia Spaziale Italiana. Grant agreement: 2019-4-U.O. (10/10/2019- 09/10/2022). Workpackage leader.  
 Delivering Soil improvers through improved recycling and processing solutions for food industry residues streams (DeliSoil). Horizon Europe. Grant agreement 101112855 (01-06-2023-31-05-2027). Participant

**Other Relevant Information**

Participation to the working groups of the MIRRI-IT Microbial Resource Research Infrastructure ITALIAN NODE

13-02-2024 **Date**

**Signature**

