

Curriculum vitae Dr Maria Santagati



Senior researcher at the University of Catania.
LabMMAR via Androne 81, 95124, tel: 095-2504732
Email: m.santagati@unict.it

Under graduate and post-graduated positions

2000 to today: researcher in Microbiology (SD BIO/19),

2000-1998: attended the laboratory of molecular microbiology LAMMB (Laboratorio di Microbiologia Molecolare e Biotecnologia), Dept of Molecular Biology, University of Siena coordinated by Prof.G. Pozzi.

1999 PhD in "Microbiological Sciences" at the University of Catania

1994 specialised in Microbiology and Virology (50/50 e lode)

1992 Professional biologist qualification. University of Catania

1990 graduated in Biological Sciences (110/110 with honors)

Teaching

She teaches Microbiology (LT), CI: Microbial Genetics and Microbial Biotechnology (BCM)

Scientific activity

Since 2000, Dott: Maria Santagati has worked at the Dept of Microbiological Science, Univ. Catania.

The main activity of her research is aimed at studying Gram-positive bacteria, in particular:

- molecular mechanisms responsible for antibiotic resistance in Gram-positive bacteria
- characterization of genetic elements such as transposons, plasmids carrying resistance determinants and their mobility by conjugation and transformation
- molecular identification of pathogens directly from biological samples by use of platforms for Real Time-PCR
- study of streptococcal bacteriocin-like inhibitory activity against potential pathogens: bacteriocin production by deferred antagonism test and characterization of their genetic elements and oral microbiome
- molecular identification by genomovar in CF patients, and expression studies of virulent and not - virulent genes in human and environmental isolates
- characterization of strains of *S. pyogenes*: identification of the M-type, determining the Sequence Type (ST) by MLST, identification of virulence genes and expression studies using real-time PCR
- Within the project PON collaborates with c-Lab, Materials and Microsystems Laboratory (Polytechnical Collage of Turin) and FBK-Bruno Kessler Foundation, Center for Materials and Microsystems Biofunctional Surfaces and Interfaces (Trento) for the development of microfluidic modules (LOC) for the implementation of PCR and real-time PCR to be used for automated molecular diagnostics based on Lab-on-chip

She characterized the genetic elements carrying *mef(A)* responsible for macrolide resistance, Tn1207.1, Tn1207.3 in *S.pneumoniae* and *S.pyogenes*, mega element in *S.salivarius* and , phage phi1207.3 in *S.pyogenes* (GenBank accession no AF227520; AF227521; AY657002; FJ236311, AY657002).

She covered activity of referee for Journal of Antimicrobial Chemotherapy and Annals of Clinical

Microbiology and Antimicrobials (ACMA), Applied and Environmental Microbiology, International Journal Antimicrobiol Agents, JARE (Journal of Applied Research)

Academic and institutional roles

Member of the Register of expert auditors MIUR - Evaluation of research projects and research products (2012 / in progress).

Member of the Academic Board of the XXIX cycle PhD in Translational Biomedicine (2014 / in progress)

Member Teachers Graduate College: in "Biology, Human genetics and bioinformatics: cellular and molecular basis of phenotype (200/2014)

Reviewer: Journal of Antimicrobial Chemotherapy, Annals of Clinical Microbiology and Antimicrobials (ACMA) and Applied and Environmental Microbiology, International Journal Antimicrobiol Agents, Jare (Journal of Applied Research)→

Member of the following Scientific Societies: Italian Society of General Microbiology and Microbial Biotechnology (SIMGBM), Italian Society of Microbiology (SIM);→ European Society of Clinical Microbiology and Infectious Diseases (ESCMID)

Patent No. RM2010A000163 - SIB B 4106R - Use of *S.salivarius* in the treatment of respiratory infections (2010).