

Personal data

Surname: Franco

Name: Domenico

Nationality: Italiana

Date of birth: 28 Giugno 1985

Birth place: Cinquefrondi (RC)

Tel.: +39 388 9344636

Education and Training

2010 Degree in Biological Sciences, University of Messina

2012 Master's degree in Biology, University of Messina

2013 Qualification to practice the Profession of Biologist, University of Messina

2013 Post-Graduate Fellow at the Department of Biological and Environmental Sciences, University of Messina for specific research activities within the project PON R&C 2007–2013, Project Polybioplast “Tecnologie e processi per la produzione di teli diversamente funzionalizzati mediante biopolimeri da conversione microbica e di biosurfattanti” (PON01_01377)

2017 PhD in Applied Biology and Experimental Medicine (XXIX cycle) University of Messina, thesis title “Phage Display as a Tool for Theranostic and Nanomedicine Application”

2017 Post-Doctoral Fellow at the MIFT Department, University of Messina, University of Messina for specific research activity within the Project “Ricerca della malattia residua della leucemia: sintesi di sistemi biosensoristici nanostrutturati e diagnostica molecolare mediante tecniche di spettroscopia ottica” (Progetto ABAL)

WORK EXPERIENCE

10/02/2020–09/02/2021 Research Fellow at University of Messina for specific research activity “Monitoraggio di contaminanti microbici in colture cellulari di espianti tissutali murini sani e di Diabete Mellito di tipo 2” within multidisciplinary project PRIN 2017 “A system approach for identifying connective tissue degeneration in diabetic analogues (SAPIENT)”

11/02/2021–30/09/2021 Collaboration agreement for research and development activities with Inova Biomedical Technology (IBMTech) s.r.l. for specific research activities about evaluation of the antibacterial properties of engineered materials, to be used for the creation of high-tech products and services based on bio/nano technologies, sensors and innovative analysis methods for applications in the medical field.

From 01/10/2021 Fixed-term researcher A SC05/I2 SSDBIO/19 (Microbiology) at the ChiBioFarAm Department of the University of Messina

Awards and Acknowledgments

June 2019 - Winner of the SIFB Scholarship involving congress registration and accommodation for the Annual Congress of the Italian Society of Photobiology – SIFB2019

Participation in editorial committees of journals

Topical Advisory Panel Member for the journals *Applied Sciences* and *Microorganisms*

Guest Editor in Special Issue "*Bacteriophages in Therapy and Biosensor Devices*" for the journal *Applied Sciences* (Open Access Journal by MDPI. IF 2.838)

Guest Editor in Special Issue "*New Antimicrobial Strategies for Medical Implantation*" for the journal *Microorganisms* (Open Access Journal by MDPI. IF 4.926)

Research activity

During the training and professional period, Dr. Franco has implemented his transversal and multidisciplinary skills concerning two close and related research lines: i) detection of molecular targets associated with infectious diseases by using of biotechnologies and ii) new antibacterial approaches through the use of nanotechnologies. Specifically, the first activity involves the use of phage-display technology for the selection of selective probes against microbial cells, as well as other molecular targets associated with leukemia, myeloma and neurodegenerative diseases. The last activity is aimed at the development of new antimicrobial and non-adherent systems for drug delivery and targeting. Overall, the research activity aims at the development and testing of the antibacterial properties of engineered materials to be used for the creation of high-tech products and services, based on bio/nano technologies, sensors and innovative analysis methodologies for applications in the medical field, with particular reference to regenerative, prosthetic, diagnostic and therapeutic medicine.

Overall, Dr. Franco has achieved a total of 45 publications (533 citations; h-index of 15) and is co-inventor of 3 international patents.