

Maria Claudia Miele
Curriculum Vitae

Biologist with experience in cellular biology, virology and microbiology.
 PhD at the laboratory of clinical microbiology at Sapienza University (Rome) and Charité (Berlin).
 Long experience abroad in research multi- disciplinary project management and contribution to technical training.
 Motivational team member who thrives in pressurized and challenging working environments. Very collaborative, reliable, well organized, proactive and willing to learn. Aiming to grow in a stimulating and dynamic environment.
 Excellent scientific and communication skills developed in academic positions and problem solving skill.

Personal information

Address
Mobile
Contacts

Date of birth

Work experience

Nov 2019-now

PhD in microbiology, public health and infectious diseases,
 Sapienza University of Rome, Charité, University of Medicine in Berlin
 (Oct. 2019-Oct 2022).

Project: Isolation and genetic characterization of bacteriophages with clinical potential application against KPC producing *Klebsiella pneumoniae*

- Immunological assay (ELISA), Microscope and cell counting and mammalian cell culture
- Isolation, purification and production of phages
- Metabolic Analysis (Calorimetry)
- Main molecular techniques (qPCR , RNA, DNA extraction)
- Analysis of antibiotic properties of essential oils, probiotic formulations versus Bacteria Gram+, Gram- and Candida albicans
- genetic characterization of phages from biological and environmental samples
- Microbiological activities
- Writing, reviewing scientific papers and presenting in international meetings

Main activities and responsibilities

Supervisors

Dr. Alessandra Oliva , Policlinico Umberto I Rome, Section Clinical Microbiology, contact alessandra.oliva@uniroma1.it

P.D. dr. Andrej Trampuz Senior physician, Section head infectious diseases Charité - UniversityMedicine Berlin. andrej.trampuz@charite.de

Occupation

- Observership, Laboratory of Clinical Research in Infectious Disease Department, Charité University of Medicine in Berlin (Oct-Nov 2019)

Main activities

- Study of phages against bacteria

Supervisor

- P.D. dr. Andrej Trampuz Senior physician, Section head infectious diseases and septic surgery Charité - University Medicine Berlin. andrej.trampuz@charite.de

Occupation

- Scholarship (Ap. 2019- Oct. 2019)
- Diagnosis of implant associated infections Sonication of medical device

<p>➤ Main activities</p>	<ul style="list-style-type: none"> ➤ Microbiological analysis of bacteria from sonicated fluid ➤ Analysis of data and presentation to "Lazio Innova seminar" ➤ Managing of external collaborations ➤ Dr. Alessandra Oliva, Policlinico Umberto I Rome, Section Infectious Diseases contact alessandra.oliva@uniroma1.it
<p>Occupation</p> <p>Main activities</p> <p>Supervisor</p>	<p>Master thesis internship in Molecular Medicine at "Sapienza" University of Rome (Sep 2016 – Dec 2017)</p> <ul style="list-style-type: none"> ➤ Mammalian cell cultures (A549, Vero, VeroE6 and CaCo cells) ➤ Cell infection with RSV-A, RSV-B and HRV, study of cytopathic effect (different time of harvest) ➤ Preparation of media (MEM, DMEM and RPMI) ➤ Confluent growth of human cells, cells counting ➤ Virology assay (Viral replication), infection of human cells with respiratory viruses (HRV, RSV-A and RSV-B) ➤ Experiments with different μoi of infection ➤ Molecular biology techniques (qPCR, RNA, DNA extraction) ➤ Analysis of cytopathic effect ➤ Write scientific papers and analysis of data ➤ Training of Masters Student and experimental design writing <p>➤ Dr. Carolina Scaanolari. Section of Molecular Virology, Sapienza, University of Rome contact</p>

Education

<p>Qualification</p>	<p>Master Degree in Biology and Cellular Biotechnology Vote: 110/110 (Dec 2017)</p>
<p>Skills covered</p>	<p>Biochemistry, Structural Biology Immunology, Bioinformatics, Molecular Biology, Microbiology and Virology. Thesis "Analysis of interferon gamma receptor expression in children with RSV and HRV bronchiolitis"</p>
<p>Organisation</p>	<p>"Sapienza" University of Rome, Italy</p>
<p>Qualification</p>	<p>Bachelor Degree in Biology (March 2015)</p>
<p>Skills covered</p>	<p>Organic and Biologic Chemistry, Genetics, Molecular Biology, Microbiology Thesis "Differences and similarities between associated prosopagnosia and congenital prosopagnosia"</p>
<p>Organisation</p>	<p>"Sapienza" University of Rome, Italy</p>

Skills / Competences

Cell biology:

- Mammalian cells cultures
- Microscopy and study of cytopathic effect
- Preparation of media

Virology:

- **Manipulation and titration of RSV and HRV viruses**
- **Viral replication in human cell lines**
- **Molecular virology**

Microbiology:

- High quality and safety in the production of new phages before clinical application
- Sterilization and filtration to avoid bacterial contamination

Phages Purification:

- Manipulation and purification of bacteriophages
- Titration and infection with phages
- Treatment of bacteria with isolated phages and DNA extraction of phages

Customer Relationships:

- Contribution to problems solving
- Active participation at project and technical meeting

Publications

- **Oliva A***, **Miele MC***, **Al Ismail D***, Di Timoteo F, De Angelis M, Rosa L, Cutone A, Mascellino MT, Valenti P and Mastroianni CM. "Challenges in the microbiological diagnosis of implant- associated infections: a summary of the current knowledge".. Submitted to "Frontiers in Microbiology- Infectious Agents and Disease. * **first author**
- Violi F, Oliva A, Cangemi R, Ceccarelli G, Pignatelli P, Carnevale R, Cammisotto V, Lichtner M, Alessandri F, De Angelis M, **Miele MC**, D'Ettorre G, Ruberto F, Venditti M, Pugliese F, Mastroianni CM. Nox2 activation in Covid-19. Redox Biol. 2020 Sep;36:101655.doi: 10.1016/j.redox.2020.101655. Epub 2020 Jul 25. PMID: 32738789; PMCID: PMC7381406. IF7.793
- Rinaldi, F.; Oliva, A.; Sabatino, M.; Imbriano, A.; Hanieh, P.N.; Garzoli, S.; Mastroianni, C.M.; De Angelis, M.; **Miele, M.C.**; Arnaut, M.; Di Timoteo, F.; Marianecchi, C.; Ragno, R.; Carafa, M. Antimicrobial Essential Oil Formulation: Chitosan Coated Nanoemulsions for Nose to Brain Delivery. Pharmaceutics 2020, 12, 678.IF 4.845
- Oliva A, Ceccarelli G, De Angelis M, Sacco F, **Miele MC**, Mastroianni CM, Venditti M. Cefiderocol for compassionate use in the treatment of complicated infections caused by extensively and pan- resistant Acinetobacter baumannii. J Glob Antimicrob Resist. 2020 Oct 13;23:292-296. doi: 10.1016/j.jgar.2020.09.019. Epub ahead of print. PMID: 33065329. IF 2.706
- Mascellino MT, Oliva A, **Miele MC**, De Angelis M, Bruno G, Severi C. Secondary Antibiotic Resistance, Correlation between Genotypic and Phenotypic Methods and Treatment in Helicobacter pylori Infected Patients: A Retrospective Study. Antibiotics (Basel). 2020 Aug 28;9(9):549. doi: 10.3390/antibiotics9090549. PMID: 32872117; PMCID: PMC7560230. IF 2.446
- Oliva A, **Miele MC**, De Angelis M, Costantini S, Mascellino MT, Mastroianni CM, Vullo V, d'Ettorre G. Antibacterial Effectiveness of Fecal Water and in Vitro Activity of a Multi-Strain Probiotic Formulation against Multi-Drug Resistant Microorganisms. Microorganisms. 2020 Feb 27;8(3):332. doi: 10.3390/microorganisms8030332. PMID: 32120875; PMCID: PMC7143114. IF4.167
- Oliva A, Aversano L, De Angelis M, Mascellino MT, **Miele MC**, Morelli S, Battaglia R, Iera J, Bruno G, Corazziari ES, Ciardi MR, Venditti M, Mastroianni CM, Vullo V. Persistent Systemic Microbial Translocation, Inflammation, and Intestinal Damage During Clostridioides difficile Infection. Open Forum Infect Dis. 2019 Dec 3;7(1):ofz507. doi: 10.1093/ofid/ofz507. PMID: 31950071; PMCID: PMC6954488. IF 1.449
- De Angelis M, Mascellino MT, **Miele MC**, Al Ismail D, Colone M, Stringaro A, Vullo V, Venditti M, Mastroianni CM, Oliva A. High Activity of N- Acetylcysteine in Combination with Beta-Lactams against Carbapenem- Resistant Klebsiella pneumoniae and Acinetobacter baumannii. Antibiotics (Basel). 2022 Feb 10;11(2):225. doi: 10.3390/antibiotics11020225. PMID: 35203827; PMCID: PMC8868344.

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Maria Claudia Miele
15.12.2022