

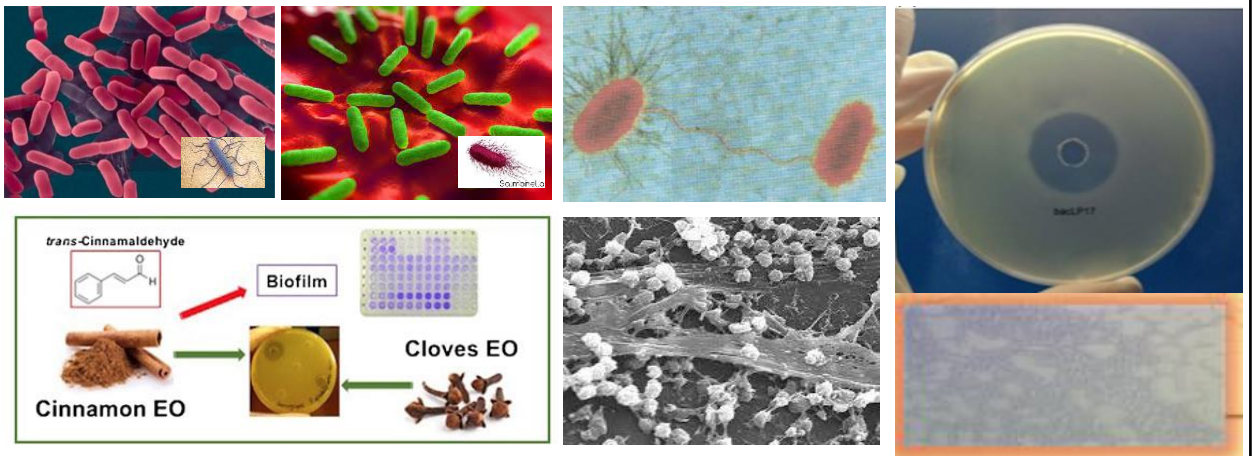
Foodborne pathogens, biopreservation and sustainable sanitization for the food industry

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[Catalogo delle Competenze](#) e [Progetti e Contratti di Ricerca](#)

RESEARCH ACTIVITY

- ❖ Study of virulence traits and their intraspecies transmissibility in pathogenic, opportunistic and spoilage bacteria (**Foodborne Pathogens Virulence Factors**)
- ❖ Growth kinetics of pathogenic and opportunistic bacteria in various foods (**challenge test**), and their ability to form biofilms or to insert into pre-existing polymicrobial biofilms (**microbial biofilm studies**)
- ❖ Antimicrobial activity of bacteriocin-producing lactic acid bacteria (LAB) or of their exoproducts (bacteriocins) directly added in foods (**food bio-preservation**)
- ❖ Antibacterial and anti-biofilm activity of compounds of plant origin with low environmental impact (**EOs, Essential Oils**)(**eco-green disinfection**)



OFFERED SERVICES

- EVALUATION of biological characteristics (morphological, biochemical) and virulence factors (hemolytic activity, biofilm production, antibiotic resistance, etc.) through morphological, biochemical and molecular studies in pathogens isolated from food products (Listeria, Salmonella etc)
- MONITORING of pathogenic and/or spoilage microorganisms in ecosystems (food, equipment, work surfaces), with simulation of problematic scenarios, such as cold chain break or presence of microbial biofilms
- Identification of PROBIOTIC features in lactic acid bacteria (LAB) isolated from food samples
- Development and testing of innovative solutions for SUSTAINABLE DISINFECTION in food industries, using natural products (EOs) themselves or in combination