

PhD programme in FOOD ENGINEERING AND BIOTECHNOLOGY

Research projects and supervisors	
Title	Supervisor
1. . Decoding Antioxidant Function in Food Systems	Prof. Matteo Mario Scampicchio
2. Advancing Encapsulation Strategies for protection of antioxidant compounds recovered from wine by-products using advanced analytical techniques (co-funded by Laimburg Research Centre)	Prof. Giovanna Ferrentino
3. Proteomics and Molecular Characterization of Bioactive Peptides from Fermented Foods: Implications for Gut–Brain Axis Modulation (co-funded by Laimburg Research Centre)	Prof. Raffaella Di Cagno
4. Next-generation winemaking innovation: from precision enology and digital decision systems to circular bioeconomy, authenticity and low-alcohol wine strategies	Prof. Emanuele Boselli
5. Investigation of the role of novel pollutants as a vector of microbial genetic resistances under the One-Health vision	Dr. Lorenzo Brusetti
6. Application of multi-omic approaches to investigate the relationships between synthetic microbial communities and crop plants to improve their resilience and yield traits	Prof. Youry Pii/Prof. Stefano Cesco
7. Forefront solutions for integrated food waste biorefinery	Prof. Francesco Patuzzi
8. Green extraction technologies for the recovery of bioactive compounds and their application in food products	Prof. Giovanna Ferrentino
9. Nutritional aspects of the sourdough fermentation for making baked goods	Prof. Marco Gobbetti
10. Diet, probiotics and prebiotics to improve the composition and functionality of the human gut microbiome: invitro and in vivo challenges	Prof. Raffaella Di Cagno/ Prof. Marco Gobbetti
11. Cheese fermentation to improve the sensory and nutritional attributes and to decrease the time of ripening	Prof. Raffaella Di Cagno/ Prof. Marco Gobbetti
12. Metabolism of phenolic compounds and fatty acids during plant-based food fermentation	Prof. Raffaella Di Cagno
13. Innovative analytical methods for assessing bioactivity of natural products	Prof. Giovanna Ferrentino/Prof. Emanuele Boselli

