Maria Gioia FABIANO

Maria Gioia Fabiano is a post doc researcher in Pharmaceutical Technology at Department of Chemistry and Drug Technology, Sapienza University of Rome. She received her PhD in Molecular design and characterization for the promotion of health and well-being: from drug to food in 2025 at the same institution, discussing the thesis “Essential Oils in Nanocarriers: Sustainable Solutions for Waste and Food Management within a One Health Approach”.
During her research activity, she has been involved in several interdisciplinary research projects, spending six months at Lund University, in the Department of Biochemistry, to deepen her understanding of nanotoxicity through experiments conducted on microalgae cell models and on aquatic invertebrates such as *Daphnia magna*. Her main research focuses on the design of eco-friendly nanocarriers based on essential oils, intended for applications in compost and food preservation, in line with the One Health concept. She is also involved in the design and development of vesicular systems and nanoemulsions for the delivery of natural compounds and drugs with antimicrobial or anticancer activity. In parallel, her research places strong emphasis on the in-depth physicochemical characterization of nanocarriers, aiming to better understand the phenomena they may undergo both *in vivo* and, in the environment, gaining greater awareness of their functional properties.