

PERSONAL INFORMATION**Francesca De Filippis**

📍 University of Naples Federico II
Department of Agricultural Sciences
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Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input checked="" type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

From 11-2022 to now	Associate Professor of Microbiology (sector 07/11 – Agricultural Microbiology) at the Department of Agricultural Sciences, University of Naples Federico II
From 02-2020 to now	Member of the PhD School in Food Science at the Department of Agricultural Sciences, University of Naples Federico II
From 03-2018 to now	Affiliate Scientist, Istituto Zooprofilattico Sperimentale del Mezzogiorno, Portici (NA)
From 2019 to 2022	Tenure-Track Assistant Professor (RTDB) of Microbiology (sector 07/11 – Agricultural Microbiology) at the Department of Agricultural Sciences, University of Naples Federico II
From 2016 to 2019	Junior Researcher (RTDA) of Microbiology (sector 07/11 – Agricultural Microbiology) at the Department of Agricultural Sciences, University of Naples Federico II
From 2015 to 2016	Post-Doctoral Researcher (Assegnista di Ricerca) at the Department of Agricultural Sciences, University of Naples Federico II. Fellowship granted by EU within the project DINAMIC - Diet-induced Arrangement of the gut Microbiome for improvement of Cardiometabolic health.
From 2012 to 2015	PhD Student at the Department of Agricultural Sciences, University of Naples Federico II. Research project: 'Omics approaches for the study of cheese microbiome.

EDUCATION AND TRAINING

From 2012 to 2015	PhD in Science and Technologies of the Agri-Food Production (XXVII cycle), Department of Agricultural Sciences, University of Naples Federico II.
From 2014 to 2015	Visiting Researcher, APC Microbiome Institute, University College of Cork, Cork (Ireland).
2013	Visiting Researcher, Argonne National Laboratory, Lemont (USA).

PERSONAL SKILLS

Mother tongue(s)	ITALIAN
Other language(s)	ENGLISH (C1)
Job-related skills	Francesca De Filippis is a microbial ecologist specialized in the application of novel metagenomics and genomics approaches to the study of human-associated and food microbiome. She leads/participate to several projects focused on the study of microbiome during food fermentation, production and spoilage, as well as on the axis diet-human microbiome-health. Her main research topics are: -influence of processing conditions on food microbiome and impact of food quality, safety and shelf-life. -microbiome in food processing environments. -influence of dietary patterns (vegan/vegetarian diet, Mediterranean diet) or specific treatments (e.g. fibre, probiotics) on human microbiome, metabolome and health. -influence of environmental pollution on gut microbiome and link with human health. -relationships between human gut dysbiosis and food allergy. -isolation and characterization of probiotics, post-biotics, Next-Generation Probiotics and live biotherapeutics.
Digital skills	Excellent knowledge of Linux environments, R language and software for genomics/metagenomics analyses.

ADDITIONAL INFORMATION

Publications	<ol style="list-style-type: none"> 1) Sequino, G., Valentino, V., Villani, F., <u>De Filippis, F.</u> (2022). Omics-based monitoring of microbial dynamics across the food chain for the improvement of food safety and quality. <i>Food Res. International</i> 157:11242. 2) Aponte, M., Esposito, F., Sequino, G., Blaiotta, G., <u>De Filippis, F.</u> (2022). Stuck or sluggish fermentations in home-made beers: Beyond the surface. <i>Int. J. Food Microbiol.</i> 383:109956. 3) Valentino, V., Sequino, G., Cobo-Díaz, J., Álvarez-Ordóñez, A., <u>De Filippis, F.</u>, Ercolini, D. (2022). Evidence of virulence and antibiotic resistance genes from the microbiome mapping in minimally processed vegetables producing facilities. <i>Food Res. International</i> 162:112202. 4) <u>De Filippis, F.</u>, Paparo, L., Nocerino, R., Della Gatta, G., Carucci, L., Russo, R., Pasolli, E., Ercolini, D., Berni Canani, R. (2021). Specific gut microbiome signatures and the associated pro-inflammatory functions are linked to pediatric allergy and acquisition of immune tolerance. <i>Nature Communications</i> 12:5958. 5) Tarallo, S.*, Ferrero, G.*, <u>De Filippis, F.*</u>, Francavilla, A., Pasolli, E., Panero, V., Cordero, F., Segata, N., Grioni, S., Pensa, R.G., Pardini, B., Ercolini, D., Naccarati, A. (2021). Stool microRNA profiles reflect different dietary and gut microbiome patterns in healthy individuals. <i>Gut</i> 71(7):1302–1314 *co-first authors 6) <u>De Filippis, F.</u>, Pasolli, E., Ercolini, D. (2020). Newly explored <i>Faecalibacterium</i> diversity is connected to age, lifestyle, geography, and disease. <i>Current Biology</i> 30:1-12. 7) <u>De Filippis, F.</u>, Pasolli, E., Ercolini, D. (2020). The food-gut axis: lactic acid bacteria and their link to food, the gut microbiome and human health. <i>FEMS Microbiology Reviews</i> 44:454-489. 8) Pasolli, E., <u>De Filippis, F.</u>, Mauriello, I.E., Cumbo, F., Walsh, A.M., Leech, J., Cotter, P.D., Segata, N., Ercolini, D. (2020). Large-scale genome-wide analysis links lactic acid bacteria from food with the gut microbiome. <i>Nature Communications</i> 11:2610. 9) <u>De Filippis, F.</u>, Pasolli, E., Tett, A., Tarallo, S., Naccarati, A., De Angelis, M., Neviani, E., Cocolin, L., Gobbetti, M., Segata, N., Ercolini, D. 2019. Distinct genetic and functional traits of human intestinal <i>Prevotella copri</i> strains are associated with different habitual diets. <i>Cell Host & Microbe</i> 25:444-453. 10) <u>De Filippis, F.</u>, Pellegrini, N., Vannini, L., Jeffery, I.B., La Storia, A., Laghi, L., Serrazanetti, D.I., Di Cagno, R., Ferrocino, I., Lazzi, C., Turroni, S., Cocolin, L., Brigidi, P., Neviani, E., Gobbetti, M., O'Toole, P.W., Ercolini, D. (2016). High-level adherence to a Mediterranean diet beneficially impacts the gut microbiota and associated metabolome. <i>Gut</i> 65:1812–1821.
Projects	<ul style="list-style-type: none"> • DOMINO - <i>Harnessing the microbial potential of fermented foods for healthy and sustainable food systems</i>, granted by EU within the Horizon Europe programme. Role: co-leader of Research Unit (2023-2026) • <i>National Biodiversity Future Center (NBFC)</i> granted by the National Recovery and Resilience Plan (NRRP), Mission 4 Component 2 Investment 1.4 and funded by the European Union - NextGenerationEU. Responsible of the activity within the Spoke 6: Microbiome characterization and preservation in traditional fermented foods (2022-2025) • METROFOOD-IT: <i>Strengthening of the Italian RI for Metrology and Open Access Data in support to the Agrifood</i>, granted by the National Recovery and Resilience Plan (NRRP), Mission 4, Component 2, Investment 1.4 and funded by the European Union - NextGenerationEU. Responsible of the activity: Use of microbiome profiles for food traceability (2022-2025) • CRESCENDO - <i>Transdisciplinary Doctoral Program in Microbiome Science at the University of Naples Federico II</i>, co-funded by EU within the call H2020 Marie Skłodowska-Curie COFUND. Role: co-PI and supervisor of one PhD project (2022-2026)

- FOODMICROHERITAGE - *Quality and authenticity protection of artisanal fermented foods through the characterization and conservation of their microbial and genetic heritage*, granted by the Ministry of Foreign Affairs and International Cooperation within the Executive Programme of Scientific Cooperation between Italy and Vietnam. Role: Principal Investigator (2021-2023)
- DTECT - *Digital TEchnologies as an enabler for a conTinuuous transformation of food safety system*, granted by EU within the Horizon2020 programme. Role: co-leader of Research Unit (2019-2023)
- MASTER - *Microbiome Applications for Sustainable food systems through Technologies and EnteRprise*, granted by EU within the Horizon2020 programme. Role: co-leader of Research Unit (2019-2023)
- POLLGUT - *Linking environmental pollution and gut microbiota in individuals living in contaminated settlements*, granted by the Italian Ministry of Health. Role: Principal Investigator (2019-2023)