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Nationality: Lebanese

Date of birth: 03/07/1997

Place of birth: Byblos, Lebanon

Education:

- PhD in Animal and Food Science (2024-)
- Master's degree in Biotechnologies for Food Science (2021-2024)
- Bachelor's degree in Human Nutrition (2015-2019)

Research Area:

- Transfer of volatile organic compounds from aromatic plants to milk
- *In vitro* rumen fermentation
- Gas production and emissions analysis
- Gas chromatography-mass spectrometry (GC-MS) analysis
- Gas chromatography (GC) and fatty acid profiling
- Sustainable livestock production systems
- Animal product quality

Brief description of Ph.D project:

The aim of my PhD project is to investigate the transfer of volatile organic compounds (VOCs), particularly terpenes, from aromatic plants such as hemp (*Cannabis sativa*), savory (*Satureja hortensis*), bedstraw (*Galium spp.*), and coneflower (*Echinacea spp.*) into milk through dietary supplementation. Using gas chromatography-mass spectrometry (GC-MS), the research will characterize the kinetics of VOC transfer and their effects

on milk quality. Additionally, the project will focus on profiling fatty acid compositions in milk using gas chromatography (GC) to assess their role as indicators of animal health, methane emissions, and metabolic status, while exploring their potential to enhance milk functionality. The project will also evaluate rumen fermentation and gas production to understand the environmental impact of dairy systems. This interdisciplinary study aims to advance sustainable strategies in animal nutrition and dairy production.

Supervisor:
Professor Franco Tagliapietra

Publications:
<https://www.researchgate.net/profile/Rebecca-El-Hawat>