EDUCATION AND TRAINING

Feb. 2021 - present

Ph.D Student in **Life and Health Sciences** (XXXVI cycle) - curriculum: Cellular Biology and Molecular Biotechnology. **School of Biosciences and Veterinary Medicine - Università di CAMERINO**
Title: **Soil and legumes of the Sibillini for high quality pasta**
Supervisors: Prof. Antonietta La Terza, Elena Vittadini (UNICAM) and Dott. Matteo Fabbri (Azienda Agricola Monte Monaco)

The aim of the PhD project is to investigate the Soil-Food relationship considering the health of the agricultural soil and the quality of its locally produced legumes and derived food products. The project has been developed with the involvement of Azienda Agricola Monte Monaco S.r.l., a local company specialized in the production of organic legume pasta.

Eight agricultural fields, involved in organic legume production and under supply chain contracts with Az. Agr. Monte Monaco, have been monitored for two years in two seasons (spring and fall). **Field activities** have been carried out to collect **soil samples** for **soil physicochemical** and **biological analysis** and plant samples for morphological traits measurements. Agricultural management data have been collected (through detailed interviews with farmers) as well as climatic and landscape data. **Laboratory activities** have been conducted to define the **Soil Biological Quality Index based on arthropods** (**QBS-ar**) and to analyse **soil mesofauna community**, **rhizospheric microbiome** associated with legume plants, and **plant morphological traits**. Further, **food samples** (seeds, legume flour and pasta) from each field have been analysed separately to define specific **nutritional, technological**, and **sensory characteristics**. Soil, plant, and food data will be correlated to identify reliable indicators of healthy soil, crop, and derived food products and to explore the soil-food link.

Broad experience in **QBS-ar** application. Experience in **phytotoxicity** (germination test) and **zootoxicity test** assessment, **rearing of soil organisms** (earthworms, enchytraeids, collembola), Soil Biological Quality Index based on earthworms (**QBS-e**), **plants morphological traits measurements** and **fertilizers** from coffee and other waste products **development**. Good skills in the **bioinformatic analysis of community (16S) sequence data** obtained by next generation sequencing using Qiime2 pipeline and other bioinformatic tools (i.e., PICRUSt).
Experience in **food analysis** (seeds, flour, pasta), physical properties evaluation, nutritional composition, technological functionality, and sensory characteristics.

Oct. 2023 - present

Visiting Scientist – University of Göttingen - Georg-August-Universität Göttingen
J.F. Blumenbach Institute of Zoology and Anthropology, Animal Ecology (Prof. Dr. Stefan Scheu)
Supervisor: Ph.D. Ting-Wen Chen
Experience in collembola functional traits measurements and taxonomic identification

November 2022

Visiting Scientist – Eurac Research,
Supervisor: Prof. Julia Seeber
Experience in earthworms taxonomic identification

March 2020 - July 2020

Intership for experimental thesis – Department of Comparative Biomedicine and Food science Università degli Studi di Padova, Supervisor: Prof. Alessandra Piccirillo

The aim of the study was to investigate the presence of colistine resistance genes (mcr) in animal manure (poultry, cattle, and pigs) used as fertilizer and in agricultural soil before and after fertilization, through the application of qPCR. I performed data analysis, descriptive statistics, and results interpretation.

Dec. 2017 – Mar. 2018

Intership for experimental thesis – School of Biosciences and Veterinary Medicine - Università degli Studi di CAMERINO, Supervisor: Prof. Irene Ricci

The thesis project was part of a monitoring with the aim of understanding the role of ticks, collected from farm animals, in the transmission of the zoonotic bacterium *Streptococcus equi*. I performed: stereoscopic analysis of ticks collected from ponies native to Lazio to define taxonomy and sex, RFLP analysis for species identification, RFLP bands sequencing analysis and identification via BLAST, multiplex-assay PCR for the detection and identification of *S. equi*, and its subspecies.

July 2017 – Aug. 2017

Internship/formative activities – School of Biosciences and Veterinary Medicine - Università degli Studi di CAMERINO, Coordinator: Prof. Stefano Rea

The internship was carried out at a meat production plant and slaughterhouse for domestic ungulates and at a heat-treated milk and dairy products plant:

- Salumificio del Conero di Manzotti Corrado & C. Snc. - Via Recanatese 25, 60022 Castelfidardo (AN)
- Azienda agricola Magnaterra di Roberto e Massimo - Via D. Bramante 68, 60022 Castelfidardo (AN)

A HACCP plan was developed considering a specific food from among those produced in the various plants. A thorough knowledge of the production and processing technology of various foods of animal origin has been acquired.

Apr. 2015 – Dec. 2021

Waitress

May 2013 – June 2013

Internship/formative activities, Progetto "Alternanza scuola-lavoro" – Liceo G. Leopardi
Veterinary clinic - Clinica veterinaria S. Biagio del Dott. Giuliodori A., Carletti A., Blasetti D., Pignotti G.
Via Mons. O.A. Romero 31, 60027 Osimo (AN), Italy - Supervisor: Dott. Alberto Giuliodori.

EDUCATION AND TRAINING

Date of award: June 7, 2023

Cultore della materia in BIO/05 for the master's degree course "Soil Microbiology and Biodiversity", and fo the Bachelor's degree course "*Ecotossicologia e valutazione di impatto ambientale* – module "*Ecotossicologia*" "*Ecologia generale*".

Date of award: Nov. 16, 2020

Esame di Stato - Authorization to practice the profession of Biologist
SENIOR BIOLOGIST- Università di CAMERINO

Oct. 2018 – July 2020
Date of award: July 24, 2020

Master's degree in Biotechnology applied to Food security and Nutrition
Department of Comparative Biomedicine and Food Science - Università degli Studi di PADOVA (PHARMACEUTICAL, VETERINARY AND MEDICAL BIOTECHNOLOGY - LM-9)
Thesis title: **Application of qPCR for the detection of colistine resistence genes in manure and agricultural soil** - Supervisor: Prof. Alessandra Piccirillo
Grade: **110 cum laude/110 cum laude**

October 2014 – March 2018
Date of award: March 14, 2018

Bachelor's degree in Sciences and Technologies of Animal Production
School of Biosciences and Veterinary Medicine - Università di CAMERINO
(ANIMAL SCIENCE AND TECHNOLOGY OF ANIMAL PRODUCTION – L-38)
Thesis title: **First identification of *Streptococcus Equi* in ticks** - Supervisor: Prof. Irene Ricci
Grade: **110 cum laude/110 cum laude**

School-leaving examination:
July 9 2014

Italian Secondary School Diploma
Liceo classico Giacomo Leopardi, indirizzo linguistico
Viale Aldo Moro, 62019 Recanati (MC), Italy.
Grade: **100/100**

PERSONAL SKILLS

Mother tongue(s)

Italian

Foreign language(s)

English - First Certificate in English (FCE) (level B2) - Cambridge
Spanish - Diplomas de Español como Lengua Extranjera (DELE) (level B1) – Insituto Cervantes
French – (level A1, school level knowledge)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	C1
Spanish	B2	B1	B1	B1	B1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user. Common European Framework of Reference for Languages

Communication skills

I can use an appropriate language for communicate clearly and effectively to different types of audiences. Good predisposition to teamwork developed in sport, school, university, and work.

Organisational / managerial skills

I can independently organize and plan my work respecting deadlines and objectives. I have a strong attitude to problem solving, excellent relational skills, spirit of adaptation, and proactivity. Studies and sport have developed in me a relentless focus on result, a strong desire for personal growth and a great motivation for learning. I can manage stress and complex situations, preserving a serene and productive working environment.

Digital skills

SELF-ASSESSMENT				
INFORMATION PROCESSES	COMMUNICATION	CONTENT CREATION	SAFETY	PROBLEM SOLVING
Independent user	Independent user	Independent user	Basic user	Basic user

Digital competences - Self-assessment grid

- Microsoft application and Office package: Excellent knowledge of Word, Excel and Power Point and good knowledge of internet browsers (Google Chrome and Firefox)
- Basic knowledge of image editing programs (Image J, Paint, Photoshop)
- Good knowledge of RStudio program (packages: ggplot2, tidyverse, vegan, terra)
- Good skills in the bioinformatic analysis of community sequence (16S) data obtained by next generation sequencing using Qiime2 pipeline and other bioinformatic tools (i.e., PICRUSt).

Courses

- Digital communication and use of social networks, **Progetto WESOCIAL**, Università degli studi di Padova (May 2020)
- **Mapping and spatial operations in R: using R as a GIS**, Physalia-courses: (September 2022)

Driving licence

B

In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.

Io sottoscritta dichiaro che quanto riportato nel presente documento; copia del mio curriculum senza dati personali (ai sensi dell'art. 4 comma 3 del D. Lgs. n. 33/2013), corrisponde a verità, ai sensi degli artt. 19 e 47 del D.P.R. n. 445/2000.

Gottinga, 25/10/2023