

Education

2018-Present

Ph.D. in Cell and developmental Biology (cycle n°XXXIV), at “La Sapienza” University of Rome.

Submitted thesis: “Energetic potential of lignocellulosic materials: waste or treasure? Development of bio-based approaches for the valorization of agro-food waste biomasses”

Conferences:

ALGAEUROPE (7-10 December 2021). E-poster presentation “Energetic potential of lignocellulose. Toward the promotion of green alternatives to fossil fuels.”

International conference Plant Cell Wall Biology (27 June- 1 July 2021), Hokkaido University conference Hall, Sapporo, Japan.

SIBV-SBI (4-6 September 2019), botanical garden of the University of Padova, Italy. Poster presentation and elevator pitch “Exploiting energetic potential of lignocellulosic biomass: from agriculture waste material to algae produced biofuel”

2014-2017

Master’s degree in Genomic, Industrial and Environmental Biotechnology (110/110 *cum laude*), at “La Sapienza” University of Rome, dept. Biology and Biotechnology C.Darwin.

Thesis: “Studying the role and homeostasis of cell wall damage-associated molecular patterns in *Arabidopsis thaliana*”.

Erasmus exchange at Université Pierre et Marie Curie (UPMC), 4, Place Jussieu, Paris, France. (September 2015-February 2016).

2009-2013

Bachelor’s degree in Biotechnology, “Tor Vergata” University of Rome.

Thesis: “The lipidic extract of the seaweed *Gracilariopsis longissima* (Rhodophyta, Gracilariales): potential resource for biotechnological purposes?”.

2019- present

Ph.D. student researcher in Plant Physiology at dept. Biology and Biotechnology C. Darwin, “La Sapienza”, University of Rome. Supervisor: Professor Simone Ferrari.

Activities focused on valorization of lignocellulosic waste biomasses, optimization of saccharification process, investigation on *Chlorella vulgaris* mixotrophic metabolism.

2019

Cenci-Bolognetti fellowship in Plant Physiology laboratory at “La Sapienza”, University of Rome. Supervisor: Professor Simone Ferrari.

Activities focused on chemical characterization of multiple lignocellulosic waste materials and on the analysis of the effects of pretreatments on saccharified biomass.

2017

Science communicator in “DNA. The great book of life. From Mendel to Genomics” exhibition, at Palazzo delle Esposizioni, 194, via Nazionale, Rome (Italy).

Worked as a specialized guide, conducting over 50 guided tours in English and Italian with adults and students about historical, scientific, and ethical issues related to DNA.

Work experiences

2016- 2017

University trainee in Plant Physiology laboratory at “La Sapienza”, University of Rome. Supervisor: Professor Giulia De Lorenzo.

Activities focused on analysis of plant-pathogen interactions and on growth-defense trade-off.

Technical skills

***In vivo* cultures of bacteria, plants, microalgae, and fungi:** solutions preparation and samples manipulation in sterility condition under laminar flow.

Molecular Biology techniques: DNA, RNA and proteins extraction, quantification of nucleic acids, PCR analysis, RT-PCR analysis, electrophoresis technique, genotyping using restriction enzymes, Western Blotting.

Stable transformations mediated by *Agrobacterium* (Floral Dip) and mutants screening.

Pathogenicity assays in plant systems using both bacterial and fungal pathogens.

Microscopy and anatomical analysis of plant structures.

High Performance Liquid Chromatography for oligo- and monosaccharides composition.

Chemical mutagenesis using EMS.

Language skills

Mother Tongue: Italian

English- C1 level in written language and B2 in spoken one.

French- C1 level in both spoken and written language.

Informatic skills

Proficient in consulting databases (e.g., PubMed, Tair).

Proficient in using Microsoft Office and in image-processing programs like ImageJ and Quantity One.

Additional skills

Remarkable flexibility, strong communication and teaching skills, great ability to work in team, critical thinking.

Experience in design and efficient management of research projects

Strong ability to carry out and supervise material/analytical chemistry experiments autonomously using different instrumentation and data analysis.

Enabled to the profession of Biologist by passing the Italian State Exam".

Language certification (DELF) issued by Centre Saint-Louis, Largo Giuseppe Toniolo, 20-22, Rome.

"Autorizzo la pubblicazione del mio curriculum vitae e il trattamento dei dati personali in esso contenuti in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 GDPR 679/16"

Personal skills

Supplemental info