MARCO ZARATTINI

ITALY
24/07/2015

Education and training

30 November 2009 — **Master Degree in Biotechnology Agro-industrial curriculum** at the University of Ferrara, Italy.

Thesis title: In vitro regeneration of *Jatrhopa curcas* L.; an important specie for the production of biodiesel

Final mark: 105/110

Thesis Internship in Giovanni Bernacchia's research group, Department of Life Sciences and Biotechnology

28 March 2007 — **Bachelor Degree in Biotechnology Agro-industrial curriculum** at the University of Ferrara, Italy.

Thesis title: Genetic improvement and field survey of scab (*Venturia inaequalis*) on selection of apple.

Bachelor Degree Internship at the Center for Varietal Innovation (CIV), San Giuseppe of Comacchio, Ferrara under the supervision of Dr. Paolo Martinelli and Dr. Giovanni Bernacchia.

Work experience

From November 2014 to the present — Award of a PhD fellowship in Evolutionary Biology and Ecology at the University of Parma and the University of Ferrara (Italy).

Research project on metabolic routes for proline synthesis and catabolism in *Arabidopsis thaliana* under salinity stress.

The research is carrying out at the Plant Physiology and Biochemistry laboratory, supervised by Prof. Giuseppe Forlani, at the University of Ferrara

From July 2014 to the end of October 2014 — Contract of coordinated and continuous collaboration (co.co.co) to fine-tune of a molecular technique defined quantitative PCR (q-PCR) at the Plant Physiology and Biochemistry laboratory belonging to the University of Ferrara and under the supervision of Prof. Giuseppe Forlani.

From March 2014 to June 2014 — Contract of coordinated and continuous collaboration with the Ferrara Research Consortium to identify new bacterial enzymes (7μ and 7ß hydroxysteroid dehydrogenase) useful to biocatalytically produce the Ursodeoxycolic acid (UDCA), a bile acid with pharmacological proprieties.

Research carried out at the Biocatalysis and biotrasformation

	laboratory at the University of Ferrara under the supervision of Prof. Alessandro Medi, Prof. Paola Pedrini and Dr. Giovanni Bernacchia.
From October 2013 to the end of December 2013	Contract of Assistant Professor to hold the Plant Molecular Biology course in to the Master of Bio-molecular Science degree at the University of Ferrara Main topics: - Plant genetic Improvements, - Self-Incompatibility; - Apomixis; - Molecular genetic of the flower development - Plant and Pathogen interaction - Biotic and Abiotic Stresses - Epigenesis - Biodiesel production
From October 2012 to July 2013	Winner of the International Collaboration Fellowship issued by the Emilia-Romagna's Spinner Consortium with the research project titled "Le difese Strabiliari". Research topic: characterization of the elicitor proprieties of an industrial waste (deoxycholic acid) to valorize it as an innovative bio-stimulators for plant protection against necrotrophic and biotrophic phytobacterial pathogens . Research work carried out at the NPI (Nitrogen-Pathogen Interaction) laboratory belongings to the Institute Jean Pierre Bourgin/ INRA, Vesailles, France.
From March to July 2012	Contract of coordinated and continuous collaboration with the Ferrara Research Consortium to elaborate molecular data using specific bioinformatics software: (*geNorm*e and *qBASE_plus*)
January and February 2012	Visiting scientist at the Salesian Polytechnic University in Cuenca and Quito, Ecuador, hosted by Prof. Pablo Arevalo Moscoso. Research Topic: molecular studies on the endogenous defense of an autochthonous tomato species (Cyphomandra betaceae) induced by environmental friendly active substances for obtaining innovative pesticide.
From March 2009 to the end of December 2011	Contract of coordinated and continuous collaboration with the Technology and Agro-industrial Science Park of Ferrara to work in the laboratory of molecular biology at the University of Ferrara under the supervision of Dr. Giovanni Bernacchia Name of research: Application of electrochemical advanced

technology in the fight against pests on apple (molecular study)

Pubblications

- Michele Bertazzini, Rodrigue Nansi Tchapnda, **Marco Zarattini** and Giuseppe Forlani. Proline metabolism in salt-shocked versus salt-adapted rice seedling. The XIII Congress of FISV, 24th-27th September 2014 Pisa (Italy)

- **Marco Zarattini**, Morena De Bastiani, Martina Donatoni, Stefano Civolani, Sergio Ferro, Achille Be Battisti and Giovanni Bernacchia. The antimicrobical Electrolyzed Water fights phytopathogens and triggers the plant endogenous defences. CNBXI 27st – 29st June 2012 Varese (Italy).

- Martina Donatoni, **Marco Zarattini**, Morena De Bastiani, Giovanni Bernacchia, Sergio Ferro, Achille De Battisti The microbiocidal electrolyzed activated solution (EAS) protects plants against pathogens and stimulates plant defences XIV CONGRESSO NAZIONALE DELLA SOCIETA' CHIMICA ITALIANA Lecce, 11–16 September 2011

- Donatoni M, Orlando R, **Zarattini M**, De Bastiani M, Bernacchia G, Ferro S, De Battisti (2010) The antimicrobial electrolyzed activated solution (SEA) stimulates plant defences against pathogens – Molecular studies. GEI ERA 2010, Days of Italian Electrochemical to environmental recovery, 5-10 September, Modena, Department of Chemistry.

- Orlando R, Rainieri M, **Zarattini M**, De Bastiani M, Ferro S, De Battisti A, Bernacchia G (2010) The antimicrobial electrolyzed activated water Verdeviva™ stimulates plant defences against pathogens - molecular studies**.** 18° Congress FESPB, 4-9 July, Valencia (Spagna).

Awards

2012 Winner of the Spinner grant for the Project "Mobility and international collaboration programmes for research project of industrial interest" – prot. N. 098/12 – to go at AgroParisTech/INRA institute in Versailles, France.

2012 Winner of CIB awards to attend at the CNBXI, XI National Congress of Biotechnology", Varese, University of Insubria, June 27-29,

2011 Winner of CIB (interuniversity consortium biotechnology) awards to go at Salesian Polytechnic University in Cuenca and Quito (Ecuador)

Technical skills and competences

Cellular and Molecular Biology:

- Extraction of nucleic acids and their quantification
- Traditional polymerase chain reaction (PCR); Real Time PCR;

colony PCR
- Electrophoresis on agarose and polyacrylamide gels
- Histochemical assay
- Technique of in vitro regeneration
- Vegetal differentiation assay
- Technique of bacteria and vegetal genetic transformation
- Technique of cloning
- Microarray analysis
- Plant-pathogen interaction experiment
- Technique of genetic improvement