

## CURRICULUM VITAE

Chiara FORTI

### Personal Data

*Date of birth:* December 30<sup>th</sup>, 1986

*Place of birth:* Codogno (LO), Italy

*Home address:* via Arialdo 6, Cavenago d'Adda (LO) 26824 – Italy

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*Nationality:* Italian

*Gender:* Female

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### Work Experiences

March 2015- Actually

Research activity for the genetic improvement of vegetable crops through the use of conventional and biotechnological methods (Breeding techniques, *in vitro* cultures and molecular biology) at **CREA-ORL** (Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria- Centro di Ricerca per l'Orticoltura) (Head: Dr. Giuseppe Leonardo Rotino)

Via Pallese 28, 26836 Montanaso Lombardo (LO), Italy

January 2016- September 2016

March 2015-September 2015

Technologist at **CREA-ORL** (Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria- Centro di Ricerca per l'Orticoltura) for the european project: "Misure di Accompagnamento - Frutta e Verdura nelle Scuole"

Via Pallese 28, 26836 Montanaso Lombardo (LO), Italy

### Education

October 2016 - Actually

Ph.D student of course of doctorate in Genetics, Molecular and Cellular Biology, University of Pavia, via Ferrata 1, 27100, Pavia (PV), Italy

Experimental thesis will be performed at the Plant Biotechnology Laboratory - Department of Biology and Biotechnology "L. Spallanzani", University of Pavia (Head: Prof. Daniela Carbonera – Supervisor: Dott. Alma Balestrazzi) and the CREA-ORL (Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria- Centro di Ricerca per l'Orticoltura),(Head: Dr. Giuseppe Leonardo Rotino)

Via Pallese 28, 26836 Montanaso Lombardo (LO), Italy

February 2013 – July 2013

Research stage at **C.R.A. – F.L.C.** (Consiglio per la Ricerca e la Sperimentazione in Agricoltura – Centro di Ricerca per le Produzioni Foraggere e Lattiero-Casearie) Laboratory of Plant Cell Biotechnology (Head: Dr. Massimo Confalonieri)

Viale Piacenza 29, 26900 Lodi (LO), Italy

October 2012 – December 2012 **Parco Tecnologico Padano**  
Course of Specialization “**Technical Specialist for the development of agro-food products**”  
Parco Tecnologico Padano, via Einstein 1, 26900 Lodi (LO), Italy

October 2010 – July 2012 **University of Pavia**

Faculty of Sciences, via Ferrata 1, 27100, Pavia (PV), Italy

*Scientific training:* two-year stage for the preparation of the experimental thesis was carried out at the Plant Biotechnology Laboratory - Department of Biology and Biotechnology "L. Spallanzani" (former Department of Genetics and Microbiology "A. Buzzati-Traverso"), University of Pavia (Head: Prof. Daniela Carbonera – Supervisor: Dott. Alma Balestrazzi) and the Laboratory of Plant Cell Biotechnology (CRA-FLC, Lodi) (Head: Dr. Massimo Confalonieri).

Thesis title: Molecular, biochemical and bioinformatics approaches for the identification of new markers of seed quality in *Medicago sativa* L.

Final grade: 110/110 with honors

Master's Degree in Experimental and Applied Biology – Environmental Biology and Biodiversity

October 2005 – October 2010 **University of Pavia**

Faculty of Sciences, via Ferrata 1, 27100, Pavia (PV), Italy

*Scientific training:* nine-month-stage at the Laboratory of Plant Biotechnology - Department of Biology and Biotechnology "L. Spallanzani" (Department of Genetics and Microbiology "A. Buzzati-Traverso", University of Pavia) (Head Prof. Daniela Carbonera – Supervisor: Dott. Alma Balestrazzi)

Thesis title: Analysis of the number of copies of transgenic lines in genetically modified *Medicago truncatula* by QRT-PCR approach

Final grade: 105/110

Bachelor's Degree in Biotechnology

September 2000 – July 2005 Liceo Biologico “A. Cesaris”

Via Cadorna 1, 26848 Casalpusterlengo (LO), Italy

Secondary school focusing on biological sciences

*Final grade:* 87/100

## **Languages**

*Mother language:* Italian

*Second language:* English – B2 European Level

English course certificated by Trinity College

## **Computer skills**

European Computer Driving License (ECDL) certificate

## **Technical skills**

- Analysis of agro-food production and supply chain; recognition of risks and hazards in food: chemical, physical, microbiological and prevention techniques; methods of self-control and the HACCP principles.
- Extraction and purification of DNA, RNA and proteins. Analysis with restriction enzymes, standard PCR, Quantitative Real-time PCR. Standard techniques of cloning.
- Assays of enzymatic activity
- Use of databases of DNA, RNA and protein (NCBI, Medicago Upmap, Virtual Seed Web Resource) for the search and the preliminary characterization of genes of interest.

## Driving license

B

## Research Activity

- **January 2010 - October 2010:** Extraction and purification of DNA, RNA and proteins from seeds of *M. truncatula*. Molecular characterization of genetically modified *M. truncatula* lines: detection and quantitation of transgene copy number by RealTime Quantitative PCR.
- **September 2011 - July 2012:** The experimental work has focused on issues related to seed vigor. Attention has been paid to the molecular mechanisms that control seed vigor/longevity in fodder legumes and, therefore, some agronomical traits essential for production such as uniformity in the field of emergency and tolerance to environmental stresses. The project was initiated with the cooperation of a major national Seed Company (Continental Semences spa, Traversetolo-Parma) which supplied the *M. sativa* seeds investigated, suggesting as a general objective the identification of molecular/biochemical markers of the seed quality which could be used to monitor the physiological status of seed for the market and/or germplasm banks.  
In this context, the survey is carried out at the molecular level using techniques for monitoring DNA integrity and the expression profiles of DNA repair genes in relation to seed vigor. In parallel, optimized protocols for the assay of seed antioxidant enzyme activities have been obtained.
- **February 2013 – July 2013:** The research focuses on the warm season turfgrasses as target species for the development of protocols that seek to improve the germination using alternative strategies (e.g. use of coating obtained from low cost products). This project involves collaboration with the company Continental Semences spa (Traversetolo, Parma) that provided the seeds of the species under study. The working strategy aims at dormancy release in the seeds of warm season turfgrasses, as a starting point to design similar systems in other recalcitrant species relevant for seed companies. Furthermore, the search for novel molecular and biochemical markers associated with dormancy is currently in progress, as well as the investigation of the genetic variability of warm season turfgrasses in relation to dormancy.
- **March 2015- Actually:** The research focuses on the genetic improvement of vegetable crops through the use of conventional and biotechnological methods (Breeding techniques, *in vitro* cultures and molecular biology).

*I consent to the use of my personal data in accordance with the provisions of decree 196/2003*

Forti Chiara