

CURRICULUM VITAE ET STUDIORUM



Silvia Farinati



GENERAL INFORMATION

Name and Surname	Silvia Farinati
Home Address	[REDACTED]
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Nationality	Italian
Sex	[REDACTED]
Place of birth	[REDACTED]
Date of birth	[REDACTED]
Last Work Address	University of Padova Department of Agronomy Food Natural resources Animals Environment Section Genetics Viale dell'Università, 16 35020, Legnaro (PD) - Italy Tel. 0039 049 827 2874 Fax. 0039 049 827 2839

## EDUCATION

- **July 2020**  
Institution  
**Professional qualification as a biologist with score 50/50**  
University of Padova
- **2006 - 2008**  
Institution  
Research Project  
Supervisor  
**Ph.D in Molecular, Industrial and Environmental Biotechnologies**  
University of Verona  
"Identification of genes involved in heavy metals tolerance and hyperaccumulation in *Arabidopsis halleri* and characterisation of a bZIP transcription factor responsible for Cd uptake and translocation to the shoot in *Arabidopsis thaliana*".  
Prof.ssa Antonella Furini
- **2000 - 2005**  
Institution  
Thesis Topic  
Supervisor  
**Master Degree in Agro-Industrial Biotechnology**  
**110/110 cum laude**  
University of Verona  
"Study of the transcriptional factor GBF5 of *Arabidopsis thaliana* induced by cadmium".  
Prof.ssa Antonella Furini
- **1995 - 2000**  
Mark  
Institution  
**Chemistry and Microbiology Technical Assistant**  
**100/100**  
IPSA "E. Fermi" – (VR)

## RESEARCH EXPERIENCES

- March 2021-April 2021**  
**Research Associate Fellowship:** "Borsa di animazione territoriale per la promozione dei risultati della ricerca". Nell'ambito del progetto ESCinterfere: vaccinazione della vite contro il mal d'esca.  
**Prot. n. 332 del 28/01/2021**  
**Istitution:** I Department of Agronomy Food Natural resources Animals Environment  
Viale dell'Università, 16  
35020, Legnaro (PD) - Italy  
**Supervisor:** Prof.ssa Serena Varotto
- June 2019-January 2021**  
**Research Associate Fellowship:** "RELIUM- Herbicide resistant *Lolium* spp. in climatically and agronomically diverse European countries: from developing quick and reliable detection tools to devising sustainable control strategies". ERA-NET C-IPM.  
**Prot. n. IPSP 041 2019 PD**  
**Istitution:** Istituto per la Protezione Sostenibile delle Piante, Sede Secondaria di Legnaro, CNR  
Viale dell'Università, 16  
35020, Legnaro (PD) - Italy  
**Supervisor:** Dr. Maurizio Sattin
- August 2018-December 2018**  
**Research Associate Fellowship:** "Caratterizzazione di geni coinvolti nella risposta al brassinolide in mais"  
**Prot n. 1909/2018**  
**Istitution:** Department of Agronomy Food Natural resources Animals Environment

University of Padova  
Viale dell'Università, 16  
35020, Legnaro (PD) - Italy  
**Supervisor:** Prof.ssa Serena Varotto

**May 2018-June 2018**

**Research Associate Fellowship:** "Elaborazione dei dati analisi di contaminati in barbatelle di vite e ricerche bibliografiche"  
**Prot. n. 920 del 23-04-2018**  
**Institution:** Department of Agronomy Food Natural resources Animals Environment  
University of Padova  
Viale dell'Università, 16  
35020, Legnaro (PD) – Italy  
**Supervisor:** Prof. Claudio Bonghi

**July 2017-December 2017**

**Research Associate Fellowship:** "Regolazione epigenetica dello sviluppo del frutto"  
**Prot. n. 1328/2017**  
**Institution:** Department of Agronomy Food Natural resources Animals Environment  
University of Padova  
Viale dell'Università, 16  
35020, Legnaro (PD) – Italy  
**Supervisor:** Prof.ssa Serena Varotto

**July 2015-June 2017**

**Research Associate Fellowship:** "Controllo epigenetico della maturazione in frutti climaterici e non climaterici"  
**Prot. n. 881 del 08-05-2015**  
**Institution:** Department of Agronomy Food Natural resources Animals Environment  
University of Padova  
Viale dell'Università, 16  
35020, Legnaro (PD) - Italy  
**Supervisor:** Prof. Claudio Bonghi

**June 2014-June 2015**

**Research Associate Fellowship:** "Analisi delle modifiche epigenetiche in geni di mais indotti dalla carenza idrica"  
**Prot. n. 750 del 29-05-2014**  
**Institution:** Department of Agronomy Food Natural resources Animals Environment  
University of Padova  
Viale dell'Università, 16  
35020, Legnaro (PD) - Italy  
**Supervisor:** Prof.ssa Serena Varotto

**June 2013-May 2014**

**Research Associate Fellowship:** "Analisi degli stati della cromatina mediante ChIP-seq in foglia di piante di mais allevate in condizioni di stress"  
**Prot. n. 705 del 30-05-2013**  
**Institution:** Department of Agronomy Food Natural resources Animals Environment  
University of Padova  
Viale dell'Università, 16  
35020, Legnaro (PD) - Italy  
**Supervisor:** Prof.ssa Serena Varotto

**June 2012-May 2013**

**Research Associate Fellowship:** "Approccio multidisciplinare per lo studio della regolazione epigenetica nello sviluppo del seme in arabidopsis e mais"

- Prot. n. 388 del 25-05-2012**  
**Institution:** Department of Agronomy Food Natural resources Animals Environment  
 University of Padova  
 Viale dell'Università, 16  
 35020, Legnaro (PD) - Italy  
**Supervisor:** Prof.ssa Serena Varotto
- May 2010-April 2012**      **Research Associate Fellowship:** "Studio dei meccanismi genetici ed epigenetici coinvolti nella risposta alla vernalizzazione in *C. intybus*"  
**Prot. n. 33182 del 01-06-2010**  
**Institution:** Department of Environmental Agronomy & Plant Production  
 University of Padova  
 Viale dell'Università, 16  
 35020, Legnaro (PD) - Italy  
**Supervisor:** Prof.ssa Serena Varotto
- June 2009-April 2010**      **Research Associate Fellowship:** "Caratterizzazione di geni indotti da metalli pesanti nella specie *Arabidopsis halleri*"  
**Prot. n. 29155 del 30-06-2009**  
**Institution:** Department of Biotechnology  
 University of Verona  
 Strada le Grazie, 15  
 37134, Verona - Italy  
**Supervisor:** Prof.ssa Antonella Furini
- January 2006-December 2008**      **Ph.D Fellowship:** "Identification of genes involved in heavy metals tolerance and hyperaccumulation in *Arabidopsis halleri* and characterisation of a bZIP transcription factor responsible for Cd uptake and translocation to the shoot in *Arabidopsis thaliana*".  
**Supervisor:** Prof.ssa Antonella Furini
- January 2005-December 2005**      **Master Degree Thesis:** "Study of the transcriptional factor GBF5 of *Arabidopsis thaliana* induced by cadmium".  
**Supervisor:** Prof.ssa Antonella Furini

**PERSONAL SKILLS AND  
 COMPETENCES**

MOTHER TONGUE	ITALIAN
SECOND LANGUAGE	ENGLISH
• Reading Skills	Good
• Writing Skills	Good
• Verbal Skills	Good
SOCIAL SKILLS AND COMPETENCES	Good integration with the working environment. Good teamwork ability. Hard-work and will power to get the expected outcome.

## RELEVANT SCIENTIFIC TECHNIQUES AND SKILLS

- ✓ Nucleic acids and protein extraction, purification and quantification;
- ✓ Molecular biology-based techniques: DNA/RNA electrophoresis, Southern blot (non-radioactive), western blot, PCR, cloning, fusion and expression vectors preparation, 2D-PAGE;
- ✓ cDNA amplification by RT-PCR and RACE;
- ✓ Gene expression analysis by Semiquantitative RT-PCR and Quantitative Real Time PCR techniques;
- ✓ *in situ* hybridization;
- ✓ Protein immunolocalization and chromatin immunoprecipitation (ChIP) assays;
- ✓ Bacterial transformation and cell cultures;
- ✓ Cell *in vitro* cultures;
- ✓ Stable and transient plant transformation;
- ✓ Maize, Arabidopsis and tobacco grown, self-pollination and crosses;
- ✓ Plant genotyping and GMOs detection;
- ✓ Bioinformatics tools: database querying, Blast and Clustal algorithms, Lasergene-DNASTAR software, Geneious.
- ✓ Good knowledge of Windows OS, Microsoft Office applications (Word, Excel, PowerPoint, Access, Publisher; Visual Basic), Graphical software (Photoshop, Paint Shop Pro).
- ✓ Genome-wide sample preparations for RNA-seq, smallRNA-seq and CHIP-seq analyses.

## PUBLICATIONS

[1] Farinati S, Forestan C, Canton M, Galla G, Bonghi C, Varotto S. Regulation of Fruit Growth in a Peach Slow Ripening Phenotype. *Genes*. 2021; 12(4):482. doi.org/10.3390/genes12040482

[2] Canton M, Forestan C, Farinati S, Bonghi, C, Varotto S. (2021) Epigenetic mechanisms controlling peach bud dormancy and its release: preliminary results. *Acta Hort.* 1307, 247-254  
doi: 10.17660/ActaHortic.2021.1307.38

[3] Loddo D, Imperatore G, Milani A, Panozzo S, Farinati S, Sattin M, Zanin G (2020) "First report of glyphosate-resistant biotype of *Eleusine indica* in Europe" *Agronomy*  
doi:10.3390/agronomy10111692

[4] Scarabel L, Farinati S, Sattin M (2020) "Occurrence of Resistance to ALS Inhibitors in European *Cyperus esculentus* L.: Characterisation and Implications for Management" *Agronomy*  
doi:10.3390/agronomy10081133

[5] Farinati S, Forestan C, Canton M, Varotto S, Bonghi C (2020) "miRNA regulation of fruit development" in *Plant miRNA- Shaping Development and environmental responses*, Springer\_capter V: 75-98

[6] Forestan C, Farinati S, Zambelli F, Pavesi G, Rossi V, Varotto S (2020). "Epigenetic signatures of stress adaptation and flowering regulation in response to extended drought and recovery in *Zea mays*." *Plant Cell Environment*.

PMID: 31677283  
doi: 10.1111/pce.13660

[7] Forestan C, **Farinati S**, Rouster J, Lassagne H, Lauria M, Dal Ferro N, Varotto S. (2018) "Control of maize vegetative and reproductive development, fertility and rRNAs silencing by Histone Deacetylase 108" *Genetics*

PMID: 29382649  
doi: 10.1534/genetics.117.300625

[8] Lunardon A, Forestan C, **Farinati S**, Varotto S (2018) "De Novo Identification of sRNA Loci and Non-coding RNAs by High-Throughput Sequencing" *Methods Molecular Biology*

PMID: 29052198  
doi: 10.1007/978-1-4939-7318-7\_17

[9] **Farinati S**, Rasori A, Varotto S, Bonghi C (2017) "Rosaceae fruit development, ripening and postharvest: an epigenetic perspective" *Frontiers in Plant Sciences*

PMID: 28769956  
doi: 10.3389/fpls.2017.01247

[10] Forestan C, **Farinati S**, Aiese Cigliano R, Lunardon A, Sanseverino W, Varotto S (2017) "Maize RNA PolIV affects the expression of genes with nearby TE insertions and has a genome-wide repressive impact on transcription" *BMC Plant Biology*

PMID: 29025411  
doi: 10.1186/s12870-017-1108-1

[11] Forestan C, Aiese Cigliano R, **Farinati S**, Lunardon A, Sanseverino W, Varotto S (2016) "Stress-induced and epigenetic-mediated maize transcriptome regulation study by means of transcriptome reannotation and differential expression analysis" *Scientific Reports*

PMID: 27461139  
doi: 10.1038/srep30446

[12] Lunardon A, Forestan C, **Farinati S**, Axtell MJ, Varotto S (2016) "Genome-Wide Characterization of Maize Small RNA Loci and Their Regulation in the required to maintain repression6-1 (rnr6-1) Mutant and Long-Term Abiotic Stresses" *Plant Physiology*

PMID: 26747286  
doi: 10.1104/pp.15.01205

[13] Morari F, Meggio F, Lunardon A, Scudiero E, Forestan C, **Farinati S**, Varotto S (2015). "Time course of biochemical, physiological and molecular responses to field-mimicked conditions of drought, salinity and recovery in two maize lines" *Frontiers in Plant Sciences*

PMID: 26029220  
doi: 10.3389/fpls.2015.00314

[14] Forestan C, **Farinati S**, Varotto S (2012). "The maize PIN gene family of auxin transporters" *Frontiers in Plant Sciences*,

PMID: 22639639  
doi: 10.3389/fpls.2012.00016

[15] Manara A, DalCorso G, Baliardini C, **Farinati S**, Cecconi D, Furini A (2012) "Pseudomonas putida response to cadmium: changes in membrane and cytosolic proteomes" *Journal of Proteome Research*

PMID: 2279989  
doi: 10.1021/pr300281f

[16] **Farinati S**, DalCorso G, Panigati M, Furini A (2011) "Interaction between selected bacterial strains and *Arabidopsis halleri* modulates shoot proteome and cadmium and zinc accumulation" *The Journal of Experimental Botany*  
PMID: 21357773  
doi: 10.1093/jxb/err015

[17] DalCorso G, **Farinati S**, Furini A (2010) "Regulatory networks of cadmium stress in plants" *Plant Signalling and Behaviour*,  
PMID: 20404494

[18] **Farinati S**, DalCorso G, Varotto S, Furini A (2009) "The *Brassica juncea* BjCdR15, an ortholog of *Arabidopsis* TGA3, is a regulator of cadmium uptake, transport and accumulation in shoots and confers cadmium tolerance in transgenic plants" *New Phytologist*  
PMID: 20028476  
doi: 10.1111/j.1469-8137.2009.03132.x

[19] **Farinati S**, DalCorso G, Bona E, Corbella M, Lampis S, Cecconi D, Polati R, Berta G, Vallini G, Furini A (2009) "Proteomic analysis of *Arabidopsis halleri* shoots in response to the heavy metals cadmium and zinc and rhizosphere microorganisms" *Proteomics*  
PMID: 19810031  
doi: 10.1002/pmic.200900036

[20] DalCorso G, **Farinati S**, Maistri S, Furini A (2008) "How plants cope with Cadmium: staking all on metabolism and gene expression" *Journal of Integrative Plant Biology*  
PMID: 19017114  
doi: 10.1111/j.1744-7909.2008.00737.x

**POSTERS AND  
COMMUNICATIONS  
PRESENTED AT SCIENTIFIC  
CONFERENCES**

**Farinati S**, Canton M, Bonghi C, Varotto S (2019) "Epigenetic regulation of peach fruit growth" Proceedings of The 63<sup>rd</sup> Italian Society Of Agricultural Genetics Annual Congress (Napoli, Italy - 10/13 September, 2019) - **Poster**

**VINCITORE DEL PREMIO SIGA 2019 per la MIGLIORE PRESENTAZIONE POSTER**

Forestan C, **Farinati S**, Pavesi G, Rossi V, Varotto S (2019) "Dynamic response to extended drought and recovery involve epigenetic control in stress adaptation and flowering regulation, providing insights into epigenetic memory in maize" – 61<sup>st</sup> Annual Maize Conference (St. Louis, Missouri, USA - 14/17 March, 2019) - **Poster**

Forestan C, **Farinati S**, Pavesi G, Rossi V and Varotto S (2019) "Drought stress and recovery period indicate critical epigenetic control points in stress adaptation and flowering regulation, providing insights into epigenetic memory in *Zea mays*" - INDEPTH COST Meeting (Prague, Czech Republic - 25/27 February 2019) - **Poster**

Forestan C, **Farinati S**, Pavesi G, Rossi V, Varotto S (2018) "Discovering the epigenetic memory of stress response in maize." 60<sup>th</sup> Annual Maize Conference (Saint-Malo, France - 22/25 March, 2018) - **Poster**

**Farinati S**, Galla G, Rasori A, Varotto S, Bonghi C (2017) "Epigenetic regulation of endoreduplication process: a key role for a correct peach fruit size and ripening timing" Proceedings of The 61<sup>th</sup> Italian Society Of Agricultural Genetics Annual Congress (Pisa, Italy - 19/22 September, 2017)