

PERSONAL INFORMATION



Gabriele Magon

📍 Laboratory of Genetics and Genomics for Breeding, DAFNAE, Agripolis, Università degli Studi di Padova. Viale dell'Università, 16, 35020 Legnaro (PD), Italy

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[gabriele.magon@unipd.it](mailto:gabriele.magon@unipd.it)

Sex Male | Date of birth 04/07/1994 | Nationality Italian

POSITION Post-Doc Research Fellow

WORK EXPERIENCE

01/05/23 – currently ongoing

Research Fellowship

Laboratory of Genetics and Genomics for Breeding

Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Campus of Agripolis, Viale dell'Università, 16 – 35020 Legnaro (PD), Italy

Università di Padova - Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

Research fellowship title: "Genomic analysis strategies for genetic improvement of crops aimed at enhancing the distinctiveness, uniformity and genetic stability (DUS) and identity (PVP) of pre-commercial varieties in the main horticultural species"

Scientific supervisor: Prof. Gianni Barcaccia

01/01/2023 – 30/04/23

Research Fellowship

Laboratory of Genetics and Genomics for Breeding

Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Campus of Agripolis, Viale dell'Università, 16 – 35020 Legnaro (PD), Italy

Inter-departmental Center of Research in Viticulture and Oenology (CIRVE), Via XXVIII Aprile, 14 – 31015 Conegliano (TV), Italy

Università di Padova - Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

Research fellowship title: "Functional characterization of *MYB108A* and *MYB108B* genes in grapevine".

Development and selection of overexpressing lines of *Arabidopsis thaliana* for *VvMYB108A* and *VvMYB108B* grapevine transcription factors using floral dip transformation method.

Scientific supervisor: Prof. Margherita Lucchin

01/10/2019 – 31/12/2022

PhD in Crop Science – Curriculum in Agrobiotechnology

Laboratory of Genetics and Genomics for Breeding

Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Campus of Agripolis, Viale dell'Università, 16 – 35020 Legnaro (PD), Italy

Università di Padova - Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

Development of a grapevine cv. Pinot Noir expression atlas - through RNA-Seq approach - for floral whorls tissues. Identification of the main transcription factors tissue-related and definition of their relative cistrome maps through a DAP-Seq approach, in order to discover and investigate transcription factors binding sites and gene regulation networks. Main activities: ORFs cloning in pDONR221 vector and recombination in pIX-HALO destination vector using Gateway System, transformation of chemically competent *Escherichia coli*, purification of pIX-HALO-ORFs recombinant

plasmids, *in vitro*-expression and hybridization of proteins gDNA libraries deriving from Cabernet Franc leaves. Bioinformatic analysis.

Scientific supervisor: Prof. Margherita Lucchin  
Co-supervisor: Prof. Alessandro Vannozzi

01/05/2019 - 31/09/2019 **Research Fellowship**

Laboratory of Genetics and Genomics for Breeding

Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Campus of Agripolis, Viale dell'Università, 16 – 35020 Legnaro (PD), Italy

Università di Padova - Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

Research fellowship title: "Selection of legume varieties for organic production and technological innovation in the agri-food sector".

Genetic characterization of local bean varieties using molecular markers aimed at the selection of pure commercial lines.

Collaboration on mitochondrial DNA assembly and male-sterility analysis of fennel (*Foeniculum vulgare* L.).

Scientific supervisor: Prof. Gianni Barcaccia

01/12/2018 - 31/04/2019 **Research Fellowship**

Laboratory of Genetics and Genomics for Breeding

Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Campus of Agripolis, Viale dell'Università, 16 – 35020 Legnaro (PD), Italy

Inter-departmental Center of Research in Viticulture and Oenology (CIRVE), Via XXVIII Aprile, 14 – 31015 Conegliano (TV), Italy

Experimental farm "Lucio Toniolo", Viale dell'Università, 4 – 35020 Legnaro (PD), Italy

Università di Padova - Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

Research fellowship title: "Investigation of the response of grapevine varieties resistant to downy and powdery mildew in relation to other types of biotic and abiotic stresses".

Survey of national and international literature on the behavior of grapevine varieties resistant to the main cryptogams (downy and powdery mildew) in different pedoclimatic situations in which these varieties are already widespread, on interactions with other pathogens and pests and with abiotic stresses. Collaboration in the design and preparation of an experimental field aimed at assessing the agronomic behavior and quality of production in the Venetian plain environment of 15 grapevine varieties resistant to powdery and downy mildew, both Italian and foreign.

Scientific supervisor: Prof. Margherita Lucchin

04/2018 – 10/2018 **Internship**

Laboratory of Genetics and Genomics for Breeding

Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Campus of Agripolis, Viale dell'Università, 16 – 35020 Legnaro (PD), Italy

Università di Padova - Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

Experience in laboratory of plant genetics and genomics: laboratory practices and genomic analysis concerning the gene expression kinetics (RT-PCR) of the MADS-boxes belonging to the ABCDE model during the flowering of grapevine. Use of molecular markers (RAPD, SSR, Inter-SSR) for fingerprinting and genotyping analyses aimed at the traceability crop varieties and their food derivatives.

Scientific supervisor: Prof. Gianni Barcaccia

09/2015 - 10/2016 **Internship**

Department of Agricultural and Environmental Sciences - Production, Landscape, Agroenergy (DISAA), Via Giovanni Celoria, 2 – 20133 Milano (MI), Italy

Experimental farm "Angelo Menozzi", Località Cascina Marianna – 27015 Landriano (PV), Italy

Università di Milano, Via Festa del Perdono, 7 – 20122 Milano (MI), Italy

Research and development of hybrids deriving from ancient Italian corn populations (Nostrano dell'Isola, Spinato di Gandino, Nero Spinoso d'Esine, Cinquantino, Pignoletto of Tortona, Scagliolo, Ottofile Tortonese, Bianco Vitreo, Cinquantone, Millo Corvo, Ottofile, Marano and Chiavenna): management of agro-techniques, breeding activities, seed collection and selection in experimental fields. Laboratory analyses related to phytic phosphorus content.

Scientific supervisor: Prof. Roberto Pilu

## EDUCATION AND TRAINING

01/10/2019–31/12/2022

### PhD in Crop Science – Curriculum in Agrobiotechnology

Università di Padova, Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

- Thesis title: “Regulation of gene expression in grapevine flowering process”

01/10/2016–23/10/2018

### Master’s Degree in Agricultural Sciences and Technologies – Plant Production and Defence

Università di Padova, Via VIII Febbraio, 2 – 35122 Padova (PD), Italy

- Thesis title: “Genomics of flower organ identity in grapevine (*Vitis vinifera* L.)”
- Grade: 110/110

01/10/2013–17/10/2016

### Bachelor’s Degree in Agricultural Sciences and Technologies

Università di Milano, Via Festa del Perdono, 7 - 20122 Milano (MI), Italy

- Thesis title: “Costituzione e studio di ibridi derivanti da antiche popolazioni italiane di mais (*Zea mays* L.)”
- Grade: 102/110

08/2008–07/2013

### Scientific High School Certificate

Liceo Scientifico Statale “Claudio Cavalleri”, Via Giovanni Spagliardi, 23 – 20015 Parabiago (MI), Italy

- Scientific maturity

## RESEARCH ACTIVITY

### Foreign Institutions Research Periods

- TOMSBIolab, Instituto de Biologia Integrativa de Sistemas (I2SysBio), CSIC – Universitat de Valencia, Paterna, Valencia, Spain. Project title: “Development of a shared vademecum for DAP-Seq experiments, bioinformatic analysis and metadata submission in grapevine”. 4<sup>th</sup> April – 9<sup>th</sup> October 2022

Scientific Supervisor: Dr. José Tomas Matus

Lender: Consorzio Interuniversitario per le Biotecnologie (CIB)

Development of a shared and standardized protocol for DNA Affinity Purification Sequencing (DAP-Seq) technique aimed at the determination of the entire cistrome of several transcription factors (TFs) belonging to the MYB-R2R3, WRKY and NAC families.

- FFGB lab, Campo Grande, Faculdade de Ciencias, Universidade de Lisboa. Lisbon, Portugal.  
Project title: “Developing of a shared and common protocol for *Botrytis cinerea* infection test and evaluation”. 14<sup>th</sup> August – 31<sup>st</sup> August 2022

Scientific Supervisor: Prof. Ana Margarida Fortes

Lender: Short Term Scientific Mission (STSM) - COST Action CA17111 Integrape

Controlled infection tests were performed during this period to validate previous functional genomics experiments according to which, *VviMYB108A* and *VviMYB108B* TFs, seem to be involved in grapevine response mechanisms to *Botrytis cinerea*.

- TOMSBIolab, Instituto de Biologia Integrativa de Sistemas (I2SysBio), CSIC – Universitat de Valencia, Paterna, Valencia, Spain. Project title: “Determining pipelines for constructing aggregated gene-coexpression networks in grapevine and validation by *in-vitro* approaches”. 2<sup>nd</sup> June – 12<sup>nd</sup> December 2021

Scientific Supervisor: Dr. José Tomas Matus

Lender: Short Term Scientific Mission (STSM) - COST Action CA17111 Integrape

The results obtained from a DAP-Seq experiment on the two grapevine transcription factors (TFs) *VviMYB108A/B* were integrated in a network analysis set by using the “Vitiviz” online tool by TOMSBIolab, a public database which, among the other, contains the transcriptomic data corresponding to 670 runs deriving from 42 SRA experiments, gaining the 420 most coexpressed genes. This enabled to define a regulatory network topology, defined as “High Confidence Targets” (HCTs). Plant material was generated for cross validation with the gene regulatory network obtained by

the above mentioned activities, for both *VviMYB108A* and *B*, but also for *VviWRKY3*, since it was seen to be a source node of both the previous two TFs in the regulation network; transient overexpression in *Nicotiana benthamiana* was carried out in order to observe the subcellular localization with a confocal microscopy approach; stable overexpression transformations of tomato (var. "Micro Tom") and *Arabidopsis thaliana* were performed too.

### Scientific Papers

\*Equal contribution as first author

- **Magon G.**, De Rosa V., Martina M., Falchi R., Acquadro A., Barcaccia G., Portis E., Vannozzi A. and De Paoli E. (2023). Boosting grapevine breeding for climate-smart viticulture: from genetic resources to predictive genomics. *Front. Plant Sci.* 14:1293186. doi: 10.3389/fpls.2023.1293186
- Palumbo F., Draga S., \***Magon G.**, Gabelli G., Vannozzi A., Farinati S., ... & Barcaccia G. (2023). MIK2 is a candidate gene of the S-locus for sporophytic self-incompatibility in chicory (*Cichorium intybus*, Asteraceae). *Front. Plant Sci.* 14, 1204538.
- Pirrello C., \***Magon G.**, Palumbo F., Farinati S., Lucchin M., Barcaccia G., Vannozzi A. (2022). Past, present and future of genetic strategies to control tolerance to the main fungal pathogens in grapevine. *Journal of Experimental Botany*. <https://doi.org/10.1093/jxb/erac487>.
- Orduna L., Miaomiao L., Navarro Payà D., Zhang C., Santiago A., Romero P., Ramšak Z., **Magon G.**, Höll J., Merz P., Gruden K., Vannozzi A., Cantu D., Bogs J., Wong D. C., Huang S. C., Matus J. T. (2022). Direct regulation of shikimate, early phenylpropanoid, and stilbenoid pathways by Subgroup 2 R2R3-MYBs in grapevine. *The Plant Journal* (2022)110,529–547doi: 10.1111/tj.15686
- Vannozzi A., Palumbo F., **Magon G.**, Lucchin M., Barcaccia G. (2021). The grapevine (*Vitis vinifera* L.) floral transcriptome in Pinot noir variety: identification of tissue-related gene networks and whorl specific markers in pre- and post-anthesis phases. *Horticulture Research* 8:200. <https://doi.org/10.1038/s41438-021-00635-7>
- Palumbo, F., Vitulo, N., Vannozzi, A., **Magon, G.**, Barcaccia, G. (2020). The Mitochondrial Genome Assembly of Fennel (*Foeniculum vulgare*) Reveals Two Different *atp6* Gene Sequences in Cytoplasmic Male Sterile Accessions. *Int. J. Mol. Sci.* 2020, 21(13), 4664; <https://doi.org/10.3390/ijms21134664>
- Palumbo F., Vannozzi A., **Magon G.**, Lucchin M., Barcaccia G. (2019). Genomics of flower identity in grapevine (*Vitis vinifera* L.). *Front. Plant Sci.* 7. ISSN: 1664-462X. doi: 10.3389/fpls.2019.00316

### Posters and Conference Proceedings

- **Magon G.**, Pirrello C., Gabelli G., Orduna L., Matus J. T., Barcaccia G., Lucchin M., Vannozzi A. (2023). The DAP-Seq as a tool to explore grapevine floral cistrome. In LXVI SIGA Annual Congress. Bari, Italy. 5 – 8 September 2023
- Vannozzi A., Gabelli G., **Magon G.**, Pirrello C., Zenoni S., Fattorini C., Lucchin M. (2023). The cistrome of the WRKY transcription factor family in grapevine (*V. vinifera* L.). In LXVI SIGA Annual Congress. Bari, Italy. 5 – 8 September 2023
- Draga S., Palumbo F., **Magon G.**, Gabelli G., Soria Garcia F., Vannozzi A., Farinati S., Scariolo F., Lucchin M., Barcaccia G. (2023). MIK2 is the candidate female determinant of the sporophytic self-incompatibility (SSI) locus in chicory (*Cichorium intybus*, Asteraceae). In LXVI SIGA Annual Congress. Bari, Italy. 5 – 8 September 2023
- Pirrello C., **Magon G.**, Magris G., Licursi V., Matus J. T., Lucchin M., Vannozzi A. (2022). Shaping the role of *Vitis* R2R3-MYB C2 repressors in transcriptional regulation by integrating DAP-Seq and GCN data. In LXV SIGA Annual Congress. Piacenza, Italy. 6 – 9 September 2022
- **Magon G.**, Pirrello C., Orduna Rubio L., Magris G., Fattorini C., Licursi V., Matus J. T., Lucchin M., Vannozzi A. (2022). DAP-Seq analysis on MYB108/AB transcription factors identified candidate target genes involved in anther development and biotic stress response in grapevine. In XIII. International Symposium on Grapevine Breeding and Genetics – Landau in der Pfalz, Germany. 10-17 July 2022
- Vannozzi A., Perin C., Palumbo F., **Magon G.**, Sandri M., Zuccolotto P., Zenoni S., Pindo M., Sonogo P., Cestaro A., Lucchin M. (2022). Dissecting the effect of soil on berry transcriptional plasticity in two Italian grapevine varieties (*V. vinifera* L.). The role of soil on grape transcriptome. In XIII International Symposium on Grapevine Breeding and Genetics – Landau in der Pfalz, Germany. 10-17 July 2022
- Pirrello C., **Magon G.**, Magris G., Matus J. T., Lucchin M., Vannozzi A. (2022). DAP-seq and GCN analyses to infer the role of the grapevine R2R3-MYB C2 repressors clade. In XIII. International Symposium on Grapevine Breeding and Genetics – Landau in der Pfalz, Germany. 10-17 July 2022
- Fattorini C., Licursi V., **Magon G.**, Magris G., Pezzotti M., Zenoni S. (2022). NAC family's cis-regulatory elements atlas in grapevine. In XIII. International Symposium on Grapevine Breeding and Genetics – Landau in der Pfalz, Germany. 10-17 July 2022
- **Magon G.**, Pirrello C., Orduna Rubio L., Magris G., Fattorini C., Licursi V., Matus J.T., Lucchin M., Vannozzi A. (2021). Definition of the *VviWRKY3* transcriptional orchestration in grapevine integrating gene co-expression network (GCN) and DNA-affinity purification sequencing (DAP-Seq) approaches. In LXIV SIGA Annual Congress. Online, 14-19 September 2021
- Pirrello C., **Magon G.**, Magris G., Licursi V., Matus J.T., Lucchin M., Vannozzi A. (2021). Insight on the

VviMYBC2-L4 transcriptional regulation role in *Vitis vinifera* through DAP-Seq and GCN analysis. In LXIV SIGA Annual Congress. Online, 14-19 September 2021

- Palumbo F., Vannozzi A., **Magon G.**, Lucchin M., Barcaccia G. (2021). The grapevine (*Vitis vinifera* L., Pinot noir) floral atlas: identification of whorl-related networks and tissue specific genes in pre- and post-anthesis. In LXIV SIGA Annual Congress. Online, 14-19 September 2021
- Fattorini C., Amato A., Magris G., **Magon G.**, Licursi V., Zenoni S., Pezzotti M. (2021). DAP-seq analysis of VviNAC03 transcription factor in *Vitis vinifera*. In LXIV SIGA Annual Congress. Online, 14-19 September 2021
- **Magon G.**, Palumbo F., Barcaccia G. (2019). Use of DNA markers for breeding varieties and protecting Plant Breeder's Rights in *Petunia hybrida*: a case study. In LXIII SIGA Annual Congress. Napoli, Italy. 10-13 September 2019
- Palumbo F., Vannozzi A., **Magon G.**, Lucchin M., Barcaccia G. (2019). Genomics of flower identity in grapevine (*Vitis vinifera* L.). In LXIII SIGA Annual Congress. Napoli, Italy. 10-13 September 2019
- Palumbo F., Vannozzi A., **Magon G.**, Lucchin M., Barcaccia G. (2019) Genomics of flower identity in grapevine (*Vitis vinifera* L.). In COST Action CA17111 Integrate First Annual Meeting: data integration as a key step for future grapevine research. Crete, Greece. 24-29 March 2019
- Puglisi D., Cantaluppi E., Cassani E., Scapin A., **Magon G.**, Gallizia F., Landoni M., Reginelli D., Pilu R. (2016) Study regarding three ways hybrids derived from Italian corn flint landraces. In LX SIGA Annual Congress. Catania, Italy. 13-16 September 2016

#### Oral Communications

- «Investigating the cistrome landscape of three main transcription factors families in grapevine». In “GRAPEDIA Annual Meeting: the birth of a centralized, federative portal” – COST Grant Innovators (CGI). Valencia, Spain. 11 – 13 September 2023. Lender: COST Grant Innovators (CGI)

Congresses

- “GRAPEDIA Annual Meeting: the birth of a centralized, federative portal” – COST Grant Innovators (CGI). Valencia, Spain. 11 – 13 September 2023
- “Climate-smart plants to feed the future” - LXVI (SIGA) Annual Congress. Bari, Italy. 5 – 8 September 2023
- XIII. International Symposium on Grapevine Breeding and Genetics – Landau in der Pfalz, Germany. 10-17 July 2022
- “Plant genetic innovation for food security in a climate change scenario” – LXIV Italian Society of Agricultural Genetics (SIGA) Annual Congress, online. 14-17 September 2021
- “Achievements, industry needs and next steps” – COST Action CA17111 Integrape III Annual meeting, online, 28 June – 2 July 2021
- “Science and innovation for sustainable agriculture intensification: the contribution of plant genetics and breeding” – LXIII Italian Society of Agricultural Genetics (SIGA) Annual Congress, Napoli, Italy. 10-13 September 2019
- “Data integration as a key step for future grapevine research” - COST Action CA17111 Integrape First Annual meeting, Creta, Greece. 24-29 March 2019

Working Groups

- “DAP&CAT” - COST Action CA17111 INTEGRAPPE Working Group Meeting. Institute for Integrative Systems Biology (I2SYSBIO), CSIC - Universitat de Valencia, Valencia, Spain. 27-31 July 2021

Courses

- Team Based Learning (TBL) workshop, Legnaro (PD), 4-5 February 2022
- Winter School “The Author-Reviewer Game”, Agripolis, Legnaro (PD), 28-29 January and 2 February 2021
- COST Action Training School “METHADA-2020 - Transcriptomic Metadata Handling and Data Analysis”. Institute for Integrative Systems Biology (I2SysBio). Valencia, Spain. 5-7 February 2020
- Winter School “Experimental design in Crop Science”, Paluzza (UD), 27-30 January 2020
- Insubria Higher Training School “NGS Data Analysis – Basic Course”. Università dell’Insubria, Busto Arsizio (VA), Italy. 11-12 February 2019

Third Mission

- “Intervento per l’individuazione di indicatori di rischio di estinzione ed erosione genetica di colture autoctone”. Fabio Palumbo and **Gabriele Magon** (2022). Veneto Agricoltura. Progetto “BIONET” 2017/2022 PSR 2014-2020

Affiliation to Scientific Societies and Professional Order

- Ordinary member of Italian Agricultural Genetics Society (SIGA)
- National license for Agronomist Doctor free profession

TEACHING ACTIVITY

Team Based Learning

Coordinated and continuous collaboration at the Department of Comparative Biomedicine and Food Science (BCA) of the University of Padova for support and supervision of the teaching activities provided according to the "team-based learning" method (TBL), within the teaching of “Genomics” of professors Luca Bargelloni, Alessandro Vannozzi and Sara Faggion, delivered to the master’s degree course "Biotechnologies for Food Science".

Laboratory Integrative Didactic Activity

TEACHING DISCIPLINE	DEGREE COURSE	HOURS	ACADEMIC YEAR
Plant Breeding	Agricultural Science and Technologies (MD)	16	2022-2023
Plant Breeding	Agricultural Science and Technologies (MD)	16	2021-2022
Plant Breeding	Agricultural Science and Technologies (MD)	16	2020-2021
Plant Breeding	Agricultural Science and Technologies (MD)	16	2019-2020
Traceability tools for species authentication	Biotechnologies for Food Science (MD)	16	2018-2019

## Seminars

SEMINAR TITLE	TEACHING DISCIPLINE	DEGREE COURSE	HOURS	ACADEMIC YEAR
"The Marker Assisted Selection"	Plant Breeding	Agricultural Science and Technologies (MD)	2	2020-2021
"Bioinformatic Tools to Support Genetic Improvement Programs"	Plant Breeding	Agricultural Science and Technologies (MD)	2	2020-2021

## Undergraduates Students Supervising Activity

STUDENT NAME	DEGREE COURSE	ACADEMIC YEAR	ROLE	THESIS TITLE
Chiara Corbanese	Agricultural Science and Technologies (MD)	2021-2022	Co-supervisor	Le micorrize consentono la comunicazione tra piante di vite ( <i>Vitis vinifera</i> L.)?
Riccardo Zustovi	Sustainable Agriculture (MD)	2020-2021	Co-supervisor	Development of a DAP-Sequencing protocol in grapevine ( <i>Vitis vinifera</i> L.) and determination of the whole cistrome related to transcription factors belonging to the WRKY, NAC and R2R3-MYB families
Samela Draga	Biotechnologies for Food Science (MD)	2019-2020	Co-supervisor	Genetic diversity and population structure analysis of a common bean core collection"

## PERSONAL SKILLS

Mother tongue	Italian				
Other language	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
Spanish - Castilian	B2	B2	B2	B2	B2

Digital skills	SELF-ASSESSMENT				
	Information processing	Communication	Content creation	Safety	Problem solving
	Independent user	Proficient user	Independent user	Proficient user	Independent user

Driving license B

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

Padova, 30/11/2023

