CURRICULUM VITAE
Diana Bellin

Contact Details

Name: **Diana Bellin**
Date of Birth: August 14th, 1973
Place of Birth: Verona, Italy
Work Address: University of Verona, Department of Biotecnology
Strada Le Grazie 15, 37134 Verona, Italy
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Education

1998: **Laurea** degree in Biotechnology, University of Verona (110/110 *cum laude*)
2001-2004: **PhD** in Botany, University of Cologne – Germany

Job Experiences:

1998-2000: Research Fellowship, Istituto Agrario San Michele all'Adige-Trento
2004–2007: Post-Doc Max Planck Institute for Plant Breeding Research of Cologne (in the frame of an European Project)- Germany
2007–2008: Post-Doc, University of Udine, Agronomy University
2008: Post-Doc, University of Verona, Department of Biotechnology
2009-2014: Assistant Professor in Plant Genetics

Current position: Associate Professor in Plant Genetics, University of Verona, Department of Biotechnology

Abilitazione scientifica nazionale as Full Professor for the SSD 07/E1 (CHIMICA AGRARIA, GENETICA AGRARIA E PEDOLOGIA) since November 21st 2023.

Academic Teaching and other academic activities:

2009: Biomolecular Technologies, bachelor's degree in Biotechnology L2, University of Verona (1CFU).

2009-2013: Genomics and Transcriptomics, master degree in Biotechnology LM7, University of Verona (4 CFU),

2014-present: Transcriptomics, module of the Course in Omic Sciences master degree in Biotechnology LM7, University of Verona (4 CFU)

2014-present: Methods in Genetics (4-5 CFU) bachelor's degree in Biotechnology L2, University of Verona.

2019-present: Molecular genetics and plant breeding, master degree in Biotechnology LM7, University of Verona (3 CFU),

2021-present: Varietal and genetic identity in grapevine, master degree in Viticulture, Oenology and the Wine Market LM69, University of Verona (3CFU)

2022-2024: Plant breeding, bachelor's degree Sistemi agricoli sostenibili, University of Brescia (3 CFU)

19-23 December 2016: invited to held the post-graduate special Course "Methods for large scale gene expression analysis", Course in Modern Biochemistry, College of Life Sciences of the Nanjing Agricultural University, P.R. China

June2023: RNASeq Course for the PhD program in Biotechnologies of University of Verona

Since 2009 supervised 25 bachelor thesis, 9 master thesis and 7 PhD thesis

PhD Committee member: University of Bari (in 2022 and 2024), University of Piacenza (in 2012), University of Padova (in 2018), Université de Nice-Sophia Antipolis (in 2018) and University of Verona (2018 and 2017)

Committee member for master, bachelor degrees and regular teaching courses exams at University of Verona

Institutional activities:

Referente CdS (coordinator), bachelor's degree in Biotechnology L2, University of Verona and President of Quality Assurance committee (2019-present).

Member of teaching staff PhD program in Biotechnologies, University of Verona (2011-2020; 2023-present).

Member of the Council at Biotechnology Department (2009-present).

Research activity

I have been working in plant genetics, both on model plant species as well as in crops. My work is focused on plant genetics and breeding. I worked on characterization of plant pathogen interaction mechanisms both in *Arabidopsis thaliana* as well as in grapevine system. Recently my research activity has been focused on the dissection, by mean of genetic approaches, of grapevine response to abiotic stress and regulation of grapevine phenology as well as on studying genetic diversity in grapevine.

Funded Projects

"Sviluppo di metodologie genetiche avanzate per l'identificazione di specie ittiche", Bando Joint Project 2009 University of Verona (2010-2013)

“Functional genomic and fisiological studies of the pathosystem Fusarium verticillioides – maize” PRIN 2009 (2011-2014)

“Characterization of NO signaling in plant hypersensitive cell death and establishment of novel NO-donors for plants”, Bando Joint project 2012 University of Verona (2013-2016)

“Sviluppo di protocolli per la produzione di librerie "mate-pair" per il sequenziamento de-novo di genomi complessi” Fondo Sociale Europeo 2012, Regione Veneto, Azione assegni di ricerca (2013-2014)

“Implementazione di sistemi per la rintracciabilità nella filiera alimentare” ammesso a finanziamento da parte del Fondo Sociale Europeo 2013, Regione Veneto, Azione assegni di ricerca (2014-2015)

"Identificazione dei geni che controllano la maturazione in vite mediante uno studio di associazione per geni candidati" Bando Joint Project 2015 University of Verona (2016-2019)

“Sviluppo di popolazioni di vite per Next-generation breeding” Bando Joint Project 2016 University of Verona (2017-2020)

“Selezione assistita e valutazione agronomica di viti resistenti a *Plasmopara viticola* ottenute dall’incrocio di Corvina con un vitigno resistente” Fondo Sociale Europeo 2018, Regione Veneto, Azione assegni di ricerca (2018 -2019)

“Valutazione di possibili sorgenti genetiche potenzialmente utili per il miglioramento dell’uva da tavola” Bando Joint Project 2018 University of Verona (2019-2023)

“Valorizzazione della biodiversità in accessioni di frumento di origine algerina per l’identificazione di tratti di resilienza allo stress termico ed idrico, utili allo sviluppo di varietà migliorate più adatte ai cambiamenti climatici” PON “Ricerca e Innovazione” 2014-2020, Azione IV.6 “Contratti di ricerca su tematiche Green” D.M. 1062 10.08.2021 (2022-present)

“Valutazione di selezioni di viti resistenti per la produzione viticola locale e sviluppo di nuovi processi di selezione assistita per le varietà del territorio” Bando Ricerca e Sviluppo 2021-2022 Fondazione CARIVERONA (2022-2026)

“Combining seedlessness and durable resistance in table grape” Joint Research 2022, University of Verona

“New tools for seedlessness in suistainable table grapes” PRINPNRR 2022 (2023-2026)

RIBA2022 Finanziamento di Ateneo

“Caratterizzazione di tratti di resilienza a stress abiotico in landraces algerine e produzione di materiali per la coltivazione sostenibile del frumento duro” FSE 2023

“Dissecting the genetic and physiological mechanisms of grapevine resilience to heat stress”, RESPONSABILE SCIENTIFICO NAZIONALE DI PROGETTO (PI) PRIN2022

Progetto RIR, Regione Veneto 2025 “VITIVOLUTION” TASK LEADER

Congress participation as speaker or chair

“Evaluation of different methods to analyse grapevine AFLPs” 3rd Italian workshop on Genome Research, 1999 Mattinata

"Intravarietal DNA polymorphisms in grapevine (V. vinifera L.)", International Symposium on

Molecular Markers for characterizing genotypes and identifying cultivars in horticulture (ISHS) Montpellier 6-8 March 2000.

"Combining next-generation pyrosequencing with microarray for large scale expression analysis in non-model species" 53esimo Convegno Annuale della Società Italiana di Genetica Agraria, Torino 16-19 September 2009.

"Identifying candidate genes involved in NO signaling during cell death" 54esimo Convegno Annuale della Società Italiana di Genetica Agraria, Matera 27-30 September 2010.

"Ruolo dell'NO in pianta durante l'interazione pianta-patogeno" iNOS: Convegno della società italiana Ossido Nitrico 27 September 2013.

"Plants can disarm pathogen's virulence machinery by S-nitrosylation of bacterial effectors" Baeza in Spagna 15-18 October 2014

"An integrated meta-QTL and transcriptomic data mining approach to select candidates controlling veraison time in grapevine", XII International Conference on Grapevine Breeding and Genetics, Bordeaux 15-20 July 2018

"Transcriptome modulation associated to Nitric Oxide induced Cell Death" 7th Plant Nitric Oxide International Meeting, Nizza 24-26 October 2018.

"Integration of meta-QTL and transcriptomic data to select candidate genes controlling veraison time in grapevine" Venice 30 September-04 October 2019.

"Flash Talk presentation" dal titolo "Understanding the genetic determinism of phenological and quality traits in 'Corvina' grape variety for selection of improved genotypes" MACROWINE2021, 23-30 June 2021.

"Le informazioni dalle analisi e sequenziamento del DNA dei vinaccioli" Project presentation In Veronensium mensa. Food and Wine in ancient Verona, 30 March 2023, Verona.

Co-chair of session "Genetics and breeding for disease resistance in plant" 63esimo Convegno Annuale della Società Italiana di Genetica Agraria, Napoli 10-13 September 2019.

Co-chair of session "NO signaling in plants" 7th Plant Nitric Oxide International Meeting, Nizza 24-26 October 2018

Participation to Scientific societies and congress organization

Member of the Italian Society of Agricultural Genetics (SIGA)

Participation to the Local organizing committee of Plant Oxygen Group 2015,

Participation to the Local organizing committee of LXII Convegno Annuale SIGA in 2018

Participation to the Local organizing committee of 10th International Symposium on Grapevine Physiology and Biotechnology in 2016

Reviewer and editorial activity:

Reviewer for Journal of experimental Botany, Plant physiology, Theoretical and applied Genetics, Scientific Report, Horticulture Research, BMC Genomics, BMC Plant Biology, Australian Journal of Grape and Wine research.

Review Editor for Journal Frontiers in plant Science section Plant Abiotic Stress (2018-present)

Co-Guest Editor Special Issue "Molecular Breeding for Plant Disease Resistance" PLANTs (2023-present)

Participation as expert or member panel for Poland Ministry (Expert Panel Meeting NZ9 OPUS37) (2017 and 2020) for BBSRC (UK) (2012) and for FWO Postdoctoral Fellows (2014) and PRIN and Italian University (UD) and for ANVUR.

List of Publications:

1. Bolognesi G, Latorre A, Marini M, Codato A, Fontani F, Saggioro F, Luiselli D, Basso P, Cilli E, Bellin D. Optimizing ancient DNA recovery from archaeological plant seeds. (2025) Sci Rep. Oct 21;15(1):36595.

2. Fasani, E., Cardin, S., Commisso, M., Gecchele E, De Benedictis M, Di Sansebastiano G., Bellin D, Furini A, Dal Corso G. ABC1K2 is involved in stress response and secondary metabolism during seed development in *Arabidopsis thaliana*. (2025) Plant Cell Rep 44, 249

3. Lanubile, A., Bellin, D., Ottaviani, L. et al. Effect of Fumonisin B1 on Transcriptional Profiles and Biochemical Signatures in Resistant and Susceptible Maize Shoots. (2025) J Plant Growth Regul 44, 2514–2528

4. Piarulli L, Pirolo C, Roseti V, Bellin D, Mascio I, La Notte P, Montemurro C, Miazzi MM. Breeding new seedless table grapevines for a more sustainable viticulture in Mediterranean climate. (2024) Front Plant Sci. Apr 5;15:1379642

5. Vervalle, J.A., Costantini, L., Lorenzi, S., Lashbrooke, J.G., Tobutt, K.R., Vivier, M.A., Grando, M.S., Roodt-Wilding, R. and Bellin, D. The methodology of constructing a high-density grapevine consensus map: integrating data from three mapping populations using the Vitis18K SNP chip with a reference genome sequence. (2024). Acta Hortic. 1390, 223-230

6. Miazzi MM, Piarulli L, Pirolo C., La Notte P., Roseti V, Bellin D and Montemurro C. The IVC breeding program: development of new seedless table grapevines for a sustainable viticulture (2024) Acta Hortic. 1385. DOI 10.17660/ActaHortic.2024.1385.8

7. Fasani E, Giannelli G, Varotto S, Visioli G, Bellin D, Furini A, DalCorso G. Epigenetic Control of Plant Response to Heavy Metals. Plants (Basel). 2023 Sep 7;12(18):3195. doi: 10.3390/plants12183195

8. Broccanello C, Bellin D, Dal Corso G, Furini, A, Taranto F. Genetic approaches to exploit landraces for improvement of *Triticum turgidum* ssp. *durum* in the age of climate change. (2023) Frontiers in plant science, vol. 14, doi:10.3389/fpls.2023.1101271

9. Vervalle JA, Costantini, L, Lorenzi S, Pindo M, Mora R, Bolognesi G, Marini M, Lashbrooke JG, Tobutt KR, Vivier MA, Roodt-Wilding R, Grando MS, Bellin D. A high-density integrated map for grapevine based on three mapping populations genotyped by the Vitis18K SNP chip. (2022) Theoretical and applied genetics, doi: 10.1007/s00122-022-04225-6

10. di Rienzo V, Imanifard Z, Mascio I, Gasser CS, Skinner DJ, Pierri CL, Marini M, Fanelli V, Sabetta W, Montemurro C, Bellin D. Functional conservation of the grapevine candidate gene INNER NO OUTER for ovule development and seed formation. (2021) Horticulture research, vol. 8, p. 1-13, doi: 10.1038/s41438-021-00467-5

11. Manara A, Imanifard Z, Fracasso L, Bellin D, Crimi M. Plants expressing murine pro-apoptotic protein Bid do not have enhanced PCD. (2020) BMC RESEARCH NOTES, vol. 13, p. 450-455, ISSN: 1756-0500, doi: 10.1186/s13104-020-05285-x

12. Vezzulli S, Doligez A, Bellin D. Molecular Mapping of Grapevine Genes. (2019) In: Cantu D. Walker M.. (a cura di): Cantu D. Walker M., The Grape Genome. p. 103-136, Springer, doi: 10.1007/978-3-030-18601-2_7

13. Delfino P, Zenoni S, Imanifard Z, Tornielli GB, Bellin D. Selection of candidate genes controlling veraison time in grapevine through integration of meta-QTL and transcriptomic data. BMC Genomics. 2019 Oct 15;20(1):739

14. Sabetta W, Vandelle E, Locato V, Costa A, Cimini S, Bittencourt Moura A, Luoni L, Graf A, Viggiano L, De Gara L, Bellin D, Blanco E, de Pinto MC Genetic buffering of cyclic AMP in Arabidopsis thaliana compromises the plant immune response triggered by an avirulent strain of Pseudomonas syringae pv. tomato.. Plant J. 2019 May;98(4):590-606

15. Imanifard Z, Vandelle E, Bellin D. Measurement of Hypersensitive Cell Death Triggered by Avirulent Bacterial Pathogens in Arabidopsis. (2018) Methods Mol Biol.;1743:39-50

16. Chen J, Bellin D, Vandelle E. Measurement of Cyclic GMP During Plant Hypersensitive Disease Resistance Response. (2018) Methods Mol Biol.;1743:143-151

17. Ling T*, Bellin D*, Vandelle E, Imanifard Z, Delledonne M, Host-mediated S-nitrosylation disarms the bacterial effector HopAI1 to re-establish immunity (2017) Plant Cell. Nov 29(11):2871-2881 *shared first author

18. Hussain J, Chen J, Locato V, Sabetta W, Behera S, Cimini S, Griggio F, Martínez-Jaime S, Graf A, Bouneb M, Pachaiappan R, Fincato P, Blanco E, Costa A, De Gara L, Bellin D, de Pinto MC and Vandelle E The constitutive accumulation of cGMP in Arabidopsis thaliana plants compromises systemic acquired resistance induced by an avirulent pathogen by modulating local signals. (2016) Sci Rep. Nov 4;6:36423

19. Bellin D, Delledonne M and Vandelle E. Detection of peroxynitrite in plants exposed to biotic stress. (2016) Methods in Molecular Biology,;1424:191-200.

20. Siozios S, Tosi L, Ferrarini A, Ferrari A, Tononi P, Bellin D, Maurhofer M, Gessler C, Delledonne M and Pertot I. Transcriptional reprogramming of the mycoparasitic fungus Ampelomyces quisqualis during the powdery mildew host-induced germination (2015) Phytopathology. Feb;105(2):199-209

21. Lanubile A, Ferrarini A, Maschietto V, Delledonne M, Marocco A, Bellin D. Functional genomic analysis of constitutive and inducible defense responses to Fusarium verticillioides infection in maize genotypes with contrasting ear rot resistance. (2014) BMC Genomics. Aug 25;15:710.

22. Chen J, Vandelle E, Bellin D, Delledonne M. Detection and function of nitric oxide during the hypersensitive response in Arabidopsis thaliana: Where there's a will there's a way. (2014) Nitric Oxide. Jul 4.

23. Venuti S, Copetti D, Foria S, Falginella L, Hoffmann S, Bellin D, Cindrić P, Kozma P, Scalabrin S, Morgante M, Testolin R, Di Gaspero G. (2013) Historical introgression of the downy mildew resistance gene Rpv12 from the Asian species Vitis amurensis into grapevine varieties. PLoS One. Apr 12 8(4):e61228

24. Venturini L, Ferrarini A, Zenoni S, Tornielli GB, Fasoli M, Dal Santo S, Minio A, Buson G, Tononi P, Zago ED, Zamperin G, Bellin D, Pezzotti M, Delledonne M. (2013) De novo transcriptome characterization of Vitis vinifera cv. Corvina unveils varietal diversity. BMC Genomics. Jan 18:14-41

25. Bellin D, Asai S, Delledonne M, Yoshioka H. (2013) Nitric Oxide as a Mediator for Defense Responses. Mol Plant Microbe Interact. Mar 26(3):271-7

26. Peressotti E, Wiedemann-Merdinoglu S, Delmotte F, Bellin D, Di Gaspero G, Testolin R, Merdinoglu D, Mestre P. (2010) Breakdown of resistance to grapevine downy mildew upon limited deployment of a resistant variety. BMC Plant Biol. Jul 10:147.

27. Zenoni S, Ferrarini A, Giacomelli E, Xumerle L, Fasoli M, Malerba G, Bellin D, Pezzotti M, Delledonne M. (2010) Characterization of transcriptional complexity during berry development in Vitis vinifera using RNA-Seq. Plant Physiol. Apr 152(4):1787-95

28. Leitner M, Vandelle E, Gaupels F, Bellin D, Delledonne M. (2009) NO signals in the haze: nitric oxide signalling in plant defence Curr Opin Plant Biol. Aug 12(4):451-8

29. Cséfalvay L, Di Gaspero G, Matouš K, Bellin D, Ruperti B and Olejnicková, J. (2009) Pre-symptomatic detection of Plasmopara viticola infection in grapevine leaves using chlorophyll fluorescence imaging. Europ. J. of Plant Path. 125:291-302

30. Bellin D, Ferrarini A, Chimento A, Kaiser O, Levenkova N, Bouffard P, Delledonne M. (2009) Combining next-generation pyrosequencing with microarray for large scale expression analysis in non-model species. BMC Genomics. Nov 24;10:555.

31. Bellin D, Peressotti E, Merdinoglu D, Wiedemann-Merdinoglu S, Adam-Blondon AF, Cipriani G, Morgante M, Testolin R, Di Gaspero G. (2009) Resistance to Plasmopara viticola in grapevine 'Bianca' is controlled by a major dominant gene causing localised necrosis at the infection site. Theor Appl Genet. Dec 120(1):163-76.

32. Pajerowska-Mukhtar K, Stich B, Achenbach U, Ballvora A, Lübeck J, Strahwald J, Tacke E, Hofferbert HR, Ilarionova E, Bellin D, Walkemeier B, Basekow R, Kersten B, Gebhardt C. (2009) Single nucleotide polymorphisms in the allene oxide synthase 2 gene are associated with field resistance to late blight in populations of tetraploid potato cultivars. Genetics. Mar 181(3):1115-27.

33. Turrà D, Bellin D, Lorito D, Gebhardt C. (2008) Genotype-dependent expression of specific members of potato protease inhibitor gene families in different tissues and in response to wounding and nematode infection. J Plant Physiol. 1:166(7): 762-74

34. Bellin D, Schulz B, Salamini F, Schneider K. (2007) Transcript profiles at different growth stages and tap root zones identify correlated developmental and metabolic pathways of sugar beet. J. of Exp. Bot. 58(3):699-715.

35. Gebhardt C, Bellin D, Henselewski H , Lehmann W, Schwarzfischer J, Valkonen JPT. (2006) Marker-assisted pyramidization of major genes for pathogen resistance in potato, Theor. Appl. Genet. May 112(8):1458-64.

36. Grando MS, Bellin D, Edwards KJ, Pozzi C, Stefanini M, Velasco R. (2003) Molecular linkage maps of Vitis vinifera L. and Vitis riparia Mchx. Theor. Appl. Genet. May 106(7):1213-24.

37. Hunger S, Di Gaspero G, Mohring S, Bellin D, Schafer-Pregl R, Borchardt DC, Durel CE, Werber M, Weisshaar B, Salamini F, Schneider K. (2003) Isolation and linkage analysis of expressed disease-resistance gene analogues of sugar beet (Beta vulgaris L.). Genome. Feb 46(1):70-82.

38. Bellin D, Werber M, Theis T, Schulz B, Weisshaar B, Schneider K. (2002) EST sequencing, annotation and macroarray transcriptome analysis identify preferentially root-expressed genes in sugar beet, Plant Biology 4;6:700-710.

39. Bellin D, Velasco R, Grando MS. (2001) Intravarietal DNA polymorphism in grapevine (*V. vinifera* L.). Acta Horticulturae 546:343-349.

Book chapters:

40. Bolognesi G, Cilli E, Codato A, Curci A, Marini M, Mora R, Villa D, Luiselli D, Orsoni JM, Saggioro F, Mancassola N, De Zuccato G, Basso P, Bellin D. Analisi paleogenomiche su vinaccioli dai siti medievali di Cologna Veneta e Nogara, (2026) Mancassola N., Saggioro F. (a cura di), *Food and Wine in ancient Verona. Cibo e Vino nella Verona Antica,* vol. IV*,* Padova, Quasar

41. Bolognesi G., Cilli E., Marini M., Fontani F., Latorre A., Luiselli D., Bellin D. Il contributo delle analisi morfometriche e genetiche condotte sui vinaccioli. (2025) Basso P., Falezza G, Migliavacca M., Saggioro F. (a cura di), *Food and Wine in ancient Verona. Cibo e Vino nella Verona Antica,* vol. IV, *Cibo e ambiente nel Medioeovo,* Padova, Quasar

42. Vandelle, E., Ling, T., Imanifard, Z., Liu, R., Delledonne, M., & Bellin, D. (2016). Nitric Oxide Signaling during the Hypersensitive Disease Resistance Response. In D. Wendehenne (Ed.), Nitric Oxide and Signaling in Plants (pp. 219–243).

43. Bellin D, Delledonne M. Il ruolo delle Biotecnologie nell'agricoltura Veronese. Agricoltura Veronese (2012)

44. Bellin D, Ferrarini A, Delledonne M. (2011) Generation of a large catalog of unique transcripts for whole-genome expression analysis in non-model species. Methods Mol Biol.;729:257-69.

45. Bellin D, Stefanini M, Velasco R, Grando MS. (1999) Una mappa molecolare del Moscato bianco. "Il moscato alle soglie del 2000" Quaderni della scuola di specializzazione – Canelli (AT) November 6-7, 1999.

La sottoscritta Diana Bellin nata a Verona il 14/08/1973 C.F. BLLDNI73M54L781E e residente in Via Muretti n. 4 a Costermano sul Garda (VR), 37010, consapevole della responsabilità penale prevista per le ipotesi di falsità ai sensi degli artt. 46 e 47 del DPR 445/2000, dichiara di essere in possesso dei titoli dichiarati e che le informazioni qui riportate sono veritiere.

Verona, 26 Aprile 2026

Diana Bellin