

## CURRICULUM VITAE

### Personal Details

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**Date of Birth:** August 14<sup>th</sup>, 1973  
**Place of Birth:** Verona, Italy  
**Work Address:** Università degli Studi di Verona, Facoltà di Scienze MM FF NN  
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### Education and Job Experiences:

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**1998:** **Laurea** degree in Biotechnology, University of Verona (110/110 cum laude).  
**1998-2000:** Fellowship, Istituto Agrario San Michele all'Adige-Trento  
**2001-2004:** **PhD** in Botany, University of Cologne – Germania.  
**2004-2007:** Post-Doc Max Planck Institute for Plant Breeding Research of Cologne (European Project)- Germany  
**2007-2008:** Post-Doc, University of Udine, Agronomy  
**2008:** Post-Doc, University of Verona

**Current position:** Associate Professor, University of Verona, Biotechnology Department

### Teaching experience:

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Courses in Biomolecular Technologies, Genomics and Transcriptomics, Transcriptomics and Methods in Genetics for the Biotechnology and Agro-Industrial Biotechnology Course at the University of Verona (since 2009).

Member of teacher college for the PhD program in Biotechnologies of University of Verona (since 2011).

## List of Publications:

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### *Publications on International Scientific Journals:*

1. 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
2. Chen J, Bellin D, Vandelle E. Measurement of Cyclic GMP During Plant Hypersensitive Disease Resistance Response. (2018) *Methods Mol Biol.*;1743:143-151
3. 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
4. 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
5. Bellin D, Delledonne M and Vandelle E. Detection of peroxynitrite in plants exposed to biotic stress. (2016) *Methods in Molecular Biology*,;1424:191-200.
6. 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
7. 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.
8. 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.
9. 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
10. 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
11. 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

12. 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.
13. 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
14. 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
15. 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
16. 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.
17. 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.
18. 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.
19. 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
20. 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.
21. 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.
22. 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.
23. 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.

24. Bellin D, Werber M, Theis T, Schulz B, Weisshaar B, Schneider K. (2002) EST sequencing, annotation and microarray transcriptome analysis identify preferentially root-expressed genes in sugar beet, *Plant Biology* 4;6:700-710.
25. Bellin D, Velasco R, Grando MS. (2001) Intravarietal DNA polymorphism in grapevine (*V. vinifera* L.). *Acta Horticulturae* 546:343-349.

*Book chapters:*

26. 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).
27. Bellin D, Delledonne M. Il ruolo delle Biotecnologie nell'agricoltura Veronese. *Agricoltura Veronese* (In stampa)
28. 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.
29. 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.

*Work presented to scientific congresses:*

30. Locato V, Hussain J, Sabetta W, Chen J, Behera S, Cimini S, Blanco E, Costa A, Bellin D, De Pinto MC, Vandelle E, De Gara L Effects of cGMP constitutive accumulation in *Arabidopsis thaliana* plants challenged with avirulent pathogens. FISV 2016 20-23 September 2016 Rome, Italy
31. Crimi M, Fracasso L, Manara A, Imanifard Z, Bellin D. Bid in plants: characterization of plants expressing the animal pro-apoptotic protein Bid 201Plant Biology FESPB Europe Congress June 26th-30th 2016, Prague
32. Delfino P, Zenoni S, Tornielli GB, Vitulo N, Pezzotti M and Bellin D Meta-QTL analysis and candidates prioritization for grapevine phenology traits, Verona 13<sup>th</sup>- 18<sup>th</sup> June 2016, X International Symposium on Grapevine Physiology and Biotechnology (awarded)
33. Sabetta W, Graf A, De Pinto MC, Bellin D, Vandelle E, Blanco E. New insights into the role of cyclic nucleotides in plant pathogen interaction by a proteomic approach SIGA 8-11 September 2015 Milano
34. Chen J, Sabetta W, De Pinto MC, Blanco E, Locato V, Fincato P, De Gara L, Behera S, Costa A, Bellin D, Hussain J, Delledonne M and Vandelle E, Study of cGMP function in NO-mediated hypersensitive disease resistance response in *Arabidopsis thaliana* 12th

International Conference on Reactive Oxygen and Nitrogen Species in Plants of the Plant Oxygen Group, 24-26 June 2015, Verona

35. Imanifard Z, Kleinfelder Fontanesi K, Pachaiappan R, Vandelle E, Liu R, Delledonne M, Bellin D Identification of candidate genes involved in NO signaling during HR-cell death 12th International Conference on Reactive Oxygen and Nitrogen Species in Plants of the Plant Oxygen Group, 24-26 June 2015, Verona
36. Ling T, Bellin T, Vandelle E, Perduca M, Delledonne M Nitric oxide produced during the plant hypersensitive response disarms the bacterial effector HopAI1 restoring full MAPK functionality 12th International Conference on Reactive Oxygen and Nitrogen Species in Plants of the Plant Oxygen Group, 24-26 June 2015, Verona (oral presentation)
37. Tischner R, Bellin D, Vandelle E, Peruffo A and Delledonne M Evidence for a nitric oxide producing enzyme (NOS) in Arabidopsis that includes Pvar protein 12th International Conference on Reactive Oxygen and Nitrogen Species in Plants of the Plant Oxygen Group, 24-26 June 2015, Verona
38. Sottocornola B, Bellin D, Delledonne M and Vandelle E Plant innate immunity requires peroxynitrite-mediated MAPK regulation 12th International Conference on Reactive Oxygen and Nitrogen Species in Plants of the Plant Oxygen Group, 24-26 June 2015, Verona
39. Ling TF, Bellin D, Vandelle E, Perduca M, Delledonne M. Plants can disarm pathogen's virulence machinery by S-nitrosylation of bacterial effectors, "Oxygen and nitrogen reactive species and environment: a new vision for 2020" 15th-18th October 2014, Baeza, Spain (oral presentation)
40. Ling TF, Bellin D, Vandelle E, Perduca M, Delledonne M. (2014) Host s-nitrosylation inhibits a bacterial type III effector during hypersensitive response Munich, 5th International Plant NO Club conference, July 2014 (oral presentation)
41. Chen J, Vandelle E, Bellin D, Hussain J, Delledonne M (2014) Study of cGMP function in NO-mediated hypersensitive disease resistance response in Arabidopsis thaliana Munich, 5th International Plant NO Club conference, July 2014 (oral presentation)
42. Imanifard Z, Kleinfelder Fontanesi K, Vandelle E, Vitecek J, Pachaiappan R, Delledonne M, Bellin D A screening strategy to identify mutants impaired in nitric oxide signaling during hypersensitive response cell death Munich, 5th International Plant NO Club conference, July 2014
43. Vandelle E, Bellin D, Sottocornola B, Delledonne M Peroxynitrite produced during the hypersensitive response could question the functional redundancy of AtMKK4 and AtMKK5 via selective nitration MPMI 2014- Rodi

44. Imanifard Z, Kleinfelder Fontanesi K, Bellin D, Vandelle E, Vitecek J, Pachaiappan R, Delledonne M A screening strategy to identify mutants impaired in nitric oxide signaling during hypersensitive response cell death MPMI 2014- Rodi
45. Lanubile A, Maschietto V, Falasconi I, Bellin D, Ferrarini A, Delledonne M, Marocco A. Analysis of the cross-talk between maize and *Fusarium verticillioides* revealed by RNA-sequencing SIBV, Foggia, Italy - 2013
46. Bellin D, Kleinfelder Fontanesi K, Imanifard Z, Vitecek J, Pachaiappan R, Delledonne M. A screening strategy to identify no signaling mutants impaired in hypersensitive response cell death SIGA, Foggia, Italy- 2013
47. Kleinfelder Fontanesi K, Imanifard Z, Bellin D, Vitecek J, Pachaiappan R, Delledonne M A screening strategy to identify candidate genes involved in no signaling during hypersensitive response cell death 11th International Conference on Reactive Oxygen and Nitrogen Species in Plants – Warsaw, Poland – 2013
48. Bellin D Ruolo dell'NO in pianta durante l'interazione pianta-patogeno, iNOS Verona 2013 (oral presentation)
49. Vandelle E, Bellin D, Sottocornola B, Delledonne M Peroxynitrite regulates gene expression during the hypersensitive disease resistance response likely via mapk cascade nitration SIGA, Perugia, Italy- 2012
50. Bellin D, Vandelle E, Ling T, Kleinfelder Fontanesi K, Chen J, Huang J, Cruzado Gutierrez K, Delledonne M. Deciphering cgmp signaling in plants SIGA, Perugia, Italy- 2012
51. Kleinfelder Fontanesi K, Bellin D, Vitecek J, Pachaiappan R, Delledonne M Identification of candidate genes involved in NO signaling during cell death Edimburg UK, 4th International Plant NO Club conference, July 2012 (oral presentation)
52. Vandelle E, Bellin D, Sottocornola B, Delledonne M (2012) Tyrosine nitration selectively regulates MAPK cascades of *Arabidopsis thaliana* Edimburg UK, 4th International Plant NO Club conference, July 2012 (oral presentation)
53. Ling T, Vandelle E, Bellin D, Kleinfelder-Fontanesi K, Huang JJ, Chen J, Digby AM Delledonne M. Nitric oxide modulates activity both of plant and pathogen proteins during plant-pathogen interaction Edimburg UK, 4th International Plant NO Club conference, July 2012 (oral presentation)
54. Chen J, Huang J, Bellin D, Delledonne M Detection of NO emission and S-nitrosothiol content of *Arabidopsis thaliana* by chemiluminescence Edimburg UK, 4th International Plant NO Club conference, July 2012
55. Bellin D, Vandelle E, Hussain J, Bouneb M, Delledonne M. cGMP signaling in plant-pathogen interaction. Edimburg UK, 4th International Plant NO Club conference, July 2012

56. Huang J, Bellin D, Chen J, Kleinfelder Fontanesi K, Delledonne M Novel pathway involved in formation of NO from nitrite under normoxic conditions in Arabidopsis Edimburg UK, 4th International Plant NO Club conference, July 2012
57. Vandelle E, Bellin D, Sottocornola B, Delledonne M Peroxynitrite produced during the hypersensitive response could compromise the functional redundancy of atmkk4 and atmkk5 via selective nitration- SIPV 2012
58. Bellin D, Hussain J, Bouneb M, Kleinfelder Fontanesi K, Pachaiappan R, Vandelle E, Delledonne M. cGMP signaling in plant-pathogen interactions Joint Meeting AGI-SIBV-SIGA, Cittadella di Assisi, Italy- 2011.
59. Vandelle E, Sottocornola B, Bellin D, Delledonne M. The specificity of tyrosine nitration questions the redundancy of atmkk4 and atmkk5 during plant defense responses Joint Meeting AGI-SIBV-SIGA, Cittadella di Assisi, Italy- 2011.
60. Venturini L, Ferrarini A, Noel D, Tononi P, Buson G, Zenoni S, Bellin D, Pezzotti M, Delledonne M. De novo reconstruction of the Vitis vinifera cv. Corvina transcriptome. Joint Meeting AGI-SIBV-SIGA, Cittadella di Assisi, Italy- 2011.
61. Vandelle E, Bellin D, Ling T, Kleinfelder Fontanesi K, Chen J, Huang J, Digby AM, Delledonne M Nitric oxide is a central starting point for multiple signaling cascades during the disease resistance response, 10th International Conference on Reactive Oxygen and Nitrogen Species in Plants - Budapest, Hungary – 2011 (oral presentation)
62. Kleinfelder Fontanesi K, Bellin D, Vitecek J, Pachaiappan R, Delledonne M Identification of candidate genes involved in NO signaling during cell death 10th International Conference on Reactive Oxygen and Nitrogen Species in Plants - Budapest, Hungary - 2011
63. Bellin D., Kleinfelder Fontanesi K., Vitecek J., Pachaiappan R., Delledonne M. Identification of candidate genes involved in NO signaling during cell death in plants Nitric Oxide-Gordon Research Conference, Ventura California, 2011
64. Zenoni S, Bellin D, Zamboni A, Delledonne M, Pezzotti M. The impact of the grapevine genome knowledge on the future of viticulture and oenology Proceedings of 14th Australian Wine Industry Technical Conference, Adelaide, Australia- 2010
65. Bellin D, Bouneb M, Kleinfelder Fontanesi K, Pachaiappan R, Vitecek J, Delledonne M. Identifying candidate genes involved in NO signaling during cell death , 54th SIGA Annual Congress- Matera, Italy – 2010 (oral presentation)
66. Zenoni S, Ferrarini A, Xumerle L, Fasoli M, Malerba G, Bellin D, Pezzotti M, Delledonne M. Characterization of transcriptional complexity during berry development in Vitis vinifera using RNA-Seq, 54th SIGA Annual Congress- Matera, Italy 2010
67. Bellin D, Bouneb M, Kleinfelder Fontanesi K, Pachaiappan R, Tischner R, Vitecek J and Delledonne M Identifying candidate genes involved in NO signaling during cell death - 3rd International Plant NO Club conference – Olomouc, Check Republic Plant NO Meeting July, 2010

68. Tengfang L, Bellin D, Vandelle E and Delledonne M Does NO modulate pathogens' effectors activity during HR? -3rd International Plant NO Club conference – Olomouc, Check Republic, July 2010
69. Vandelle E, Ling T, Hussein J, Sottocornola B, Bellin D and Delledonne M Nitric oxide signaling functions in disease resistance - Receptors and Signaling in Plant Development and Biotic Interactions” Keystone Symposia - Tahoe City, California, 2010
70. Bellin D, Ferrarini A, Chimento A, Kaiser O, Levenkova N, Bouffard P, Delledonne M Combining next-generation pyrosequencing with microarray for large scale expression analysis in non-model species, 53th SIGA Annual Congress- Torino, Italy -2009 (oral presentation)
71. Giacomelli E, Zenoni S, Ferrarini A, Xumerle L, Fasoli M, Malerba G, Bellin D, Pezzotti M, Delledonne M Transcriptional complexity and functional characterization of berry development in *Vitis vinifera* by RNASeq–53th SIGA Annual Congress- Torino, Italy, 2009
72. Di Gaspero G, Bellin D, Copetti D, Peressotti E, Cipriani G, Morgante M, Testolin R Genetic determinants of downy mildew resistance in grape, Atti LI Convegno Annuale SIGA, Riva del Garda, Italy, 2007.
73. Bellin D, Paal J, Gebhardt C Characterization of the potato Gro1 locus conferring resistance to the root cyst nematode *Globodera rostochiensis*, 5.PlantGEM – Venice, Italy, 2006.
74. Bellin D, Paal J, Gebhardt C Characterization of the potato Gro1 locus conferring resistance to the root cyst nematode *Globodera rostochiensis*, 2nd Solanaceae Genome Workshop – Ischia, Italy, 2005.
75. Bellin D, Werber M, Weisshaar B, Schulz B, Salamini F and Schneider K Crosslinking structural and functional genomics in sugar beet, Plant GEM – Berlin, Germany, 2002.
76. Bellin D, Velasco R, Grando MS "Intravarietal DNA polymorphisms in grapevine (*V. vinifera* L.)" Molecular Markers for characterizing genotypes and identifying cultivars in horticulture – Montpellier, March 6-8, 2000. (oral presentation)
77. Tomasi F, Costantini L, Bellin D, Stefanini M, Grando MS Confronto ed integrazione di mappe genetiche di linkage in Vite, Atti XLIV Convegno Annuale SIGA, Bologna, Italy, 2000.
78. Bellin D, Stefanini M, Tomasi F, Velasco R, Grando MS Una mappa molecolare di *Vitis* basata su una popolazione segregante per caratteri di resistenza, Atti XLIV Convegno Annuale SIGA, Bologna, Italy, 2000.
79. Grando MS, Bellin D, Tomasi F, Gatto P, Stefanini M, Velasco R Combined mapping of AFLP, SSR, and SNP markers in *Vitis*. 6th International Symposium on grapevine Physiology and Biotechnology, Heraklion, Greece, 2000.
80. Velasco R, Schneider K, Bellin D, Grando MS SNPs development in grapevine: towards a functional map. Proc. Plant & Animal Genome VIII, San Diego, CA, 2000.

81. Grando MS, Bellin D, Madini A, Stefanini M, Pozzi C, Velasco R Construction of an AFLP and SSR genetic map of *Vitis* from an interspecific hybrid population. Proc. Plant & Animal Genome VIII, San Diego, CA, 2000.
82. Bellin D, Grando MS, Velasco R Evaluation of different methods to analyse grapevine AFLPs. 3rd Italian workshop on Genome Research – Mattinata, Italy 1999 (oral presentation)
83. Grando MS, Bellin D, Madini A, Pertot I, Stefanini M, Velasco R Mappa molecolare di *Vitis*: integrazione tra microsatelliti, RAPDs, AFLPs e SNPs. Atti XLIII Convegno Annuale SIGA -Molveno, Italy- 1999. (oral presentation)
84. Bellin D, Effgen S, Malossini U, Roncador I Identification of intravarietal AFLPs in grapevine (*V. vinifera* L.) Atti XLIII Convegno Annuale SIGA, Molveno (TN) Italy, 1999.