

Curriculum vitae

Rita Musetti

PERSONAL INFORMATION



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| *Place of birth* Piacenza,

| *Nationality* Italian

EDUCATION AND TRAINING

1989-1992

Research Fellowship

University of Parma (Italy), Institute of Botany

- Project: Responses of different crops to biotic and abiotic stresses

1984-1989

MSc

University of Parma (Italy)

- Natural Sciences (110/110 cum laude)

WORK EXPERIENCE

2022 - now

Full Professor

University of Padova

- Teaching MSc courses: Control of Plant pathogens (VEM)

- Teaching BSc courses:

Grapevine Pathology (STVE);

Plant Disease Control in Organic Crops (PBV)

- Research: Plant pathology, Plant-pathogen Interaction, Plant ultrastructural and molecular response to viruses and phytoplasmas

2015 - 2022

Associate Professor

University of Udine

- Teaching MSc courses: Grapevine Physiopathology

- Teaching BSc courses: Forest Pathology, Grapevine Pathology

- Research: Plant pathology, Plant-pathogen Interaction, Plant ultrastructural and molecular response to viruses and phytoplasmas

1992 - 2015

Scientist

University of Udine (Italy)

- Teaching MSc courses: Plant cytopathology
- Teaching BSc courses: Forest Pathology
- Research: Plant pathology, Plant-pathogen Interactions, Plant ultrastructural and molecular response to viruses and phytoplasmas

Visiting Scientist activity

- **July 1993, Visiting Scientist at the Institute of Plant Virology (IVV-CNR) Turin (Italy):**
Project: Immuno Electron Microscopy (IEM) techniques applied to plant virology (Supervisor Dr. R.G. Milne)
- **March 1- May 24, 2012, Visiting scientist** at the Justus Liebig University of Giessen (Germany). *Project: Development of methods for studying translocation of phloem-limited pathogenic phytoplasmas* founded by Deutscher Akademischer Austausch Dienst (DAAD Grant n° A/11/04104 PI1), (Supervisor Prof. A. J. E. van Bel)

Research activity

ORCID: 0000-0001-8459-0869

Number of citations in Scopus: 2663 H index: 32

Rita Musetti has pluriannual experience in the study of the diseases of grapevine and fruit trees, with competences in epidemiology, diagnosis and plant/pathogen interactions, activities accredited by more than one hundred publications in international scientific journals.

One of the main research interests is about the cytological, biochemical and molecular responses of the host plants to phytoplasma attack. The fine interaction of phytoplasmas with the phloem sieve elements is investigated, both in crop (apple trees, grapevines, tomato plants) and in test plants (*Catharanthus roseus*, *Vicia faba*, *Arabidopsis thaliana*). Mechanisms regulating plant defense responses to phytoplasmas are also object of study.

Scientific activity is also focused on endophyte/pathogen/host plant interactions.

The possibility to use grapevine endophytic fungi (or their secondary metabolites) as biocontrol agents against *Plasmopara viticola* is investigated: results obtained have been successfully submitted to Italian and international patent applications.

Other research activities are focused on emergent viral diseases of grapevine.

Lab Skills

Light and Fluorescence Microscopy, Transmission Electron Microscopy (TEM), TEM X-ray microanalysis

Main research projects

MIPAAF PROT. 9220340 DEL 08/10/20; VALORIZZAZIONE DELLA FILIERA BIOLOGICA DI PIANTE AROMATICHE E EFFICINALI PER LA DEFINIZIONE DI BIOPESTICIDI E BIOSTIMOLANTI PER LA COLTIVAZIONE BIOLOGICA DEL POMODORO - ESPOPO- CUP D53C24005970001. Role: Participant.

PRIN 2022: Dissecting the phloem response to a phloem-limited pathogen in grapevine. Role: Principal Investigator.

FD control: strategie per diminuire l'incidenza della flavescenza dorata della vite in vigneto, Funded by Regione Veneto. Role: participant.

Valutazioni agronomiche ed enologiche sui nuovi vitigni PIWI nell'ambiente veneto, Funded by Regione Veneto. Role: participant.

National Research Centre for Agricultural Technologies AGRITECH CN0000022, Piano Nazionale di Ripresa e Resilienza (PNRR), Missione 4, Componente 2, – CUP C93C22002790001, Spoke – "2 - Crop Health: a multidisciplinary system approach to reduce the use of agrochemicals". Role: participant.

AGER Project n° 2010-2106: Grapevine Yellows: innovative technologies for the diagnosis and the study of plant/pathogen interactions. Role: Lead Partner

Project Start-up 2018-2019: Functional analysis of SEOR2 gene as resistance factor in plant-phytoplasma interaction (Funded by the University of Udine, PDM VQR3 DI4A_PJ_BASE_COMPETITIVA). Role: Lead Partner

Project "Sister": "Studies on the relationship among endophytic fungi belonging to *Alternaria* spp. and *Vitis vinifera* and their potential as biocontrol agents against *Plasmopara viticola*", funded by Area Science Park, Trieste. Role: Lead Partner

Project Agribio: "Organic agriculture: innovative strategies for crop protection", funded by Province of Trento (Italy). Role: Research Unit head

Doctoral school participation:

- **Università di PARMA, "Biologia vegetale"**
From AY 2003 - Cycle: XIX
- **Università di PARMA, "Biologia vegetale"**
From AY 2004 - Cycle: XX
- **Università di UDINE, "ECONOMIA, ECOLOGIA E TUTELA DEI SISTEMI AGRICOLI E PAESISTICO-AMBIENTALI"**
From AY 2008 - Cycle: XXIV
- **Università di UDINE, "Scienze e Biotecnologie agrarie"**
From AY 2010 to 2022
- **Università di PADOVA, "Crop Science"**
From AY 2022-2023-onwards

Patent

Antifungal composition containing the Endophyte fungus *Alternaria alternata* and or its metabolites, as antagonist agents of *Plasmopara viticola*. International Publication Number WO 2008/007251 A3.

The use of the endophyte fungus *Alternaria alternata* as antagonist agent of *Plasmopara viticola* and the use of the secondary metabolites, belonging to the class of Diketopiperazines (DKPs), as antagonist substances of *Plasmopara viticola*, are the subjects of the present invention. An additional subject of the present invention is a process for producing an antagonist extract against

Plasmopara viticola from *Alternaria alternata*. Italian and international applications have been filed regarding the invention. The invention is interesting for companies that operate in the production and marketing of active products against plant pathogens, in particular against *Plasmopara viticola*. The products could be used both in conventional (if synthesized) and in organic or integrated viticulture. The secondary metabolites of *Alternaria alternata*, the use thereof is proposed according to the present invention, are known compounds belonging to the chemical family of Diketopiperazines (DKPs). The Diketopiperazines are small peptide derivatives which can be found in nature both in the animal and vegetable kingdom. They have a simple chemical configuration, they are stable to proteolysis, their synthetic routes are well known, therefore they can be synthesized easily in laboratory. In medical field, they are used as antibiotics and synthetic vaccines, as chemotherapeutic products and as antihypertensive agents; in agriculture they have been utilized against abiotic stresses and as antibacterial and antifungal substances but never reported against grapevine pathogens and in particular against *Plasmopara viticola*.

Editorial experience

- *Associate Editor* of the Journal: Molecular Plant-Microbe Interactions (2013- 2014);
- *Editorial Board Member* of the Journal: Journal of Phytopathology (from march 2021 onwards)
- *Editor of the book*: Phytoplasma: Methods and Protocols. Springer Science+Business Media LLC, 233 Spring Street New York USA (2019) doi: 10.1007/978-1-4939-8837-2
- *Reviewer activity* for different international peer-reviewed Journals

List of publications (*corresponding author)

Peer reviewed articles

1. Carminati G., Pavan F., Sommaro D., Sadallah A., **Musetti R.**, Ermacora P., Martini M. (2025). 'Candidatus Phytoplasma solani': from infection to all-round characterization of distinct tuf-type strains with different virulence in tomato plants. *Annals of Applied Biology*, accepted.
2. Karki D., **Musetti R.**, Meng B. (2025). Comparative analyses of three grapevine Pinot gris virus cDNA clones reveal insights into the pathological properties of different phylogroups. *Virology* 603: 110360.
3. Fodil S., De Zotti M., Tundo S., Gabbatore L., Vettorazzo I., Luti S., **Musetti R.**, Sella L., Favaron F., Baccelli I. (2024). Multiple lysine substitutions in the peptaibol trichogin GA IV enhance the antibiotic activity against plant pathogenic *Pseudomonas syringae*. *Pesticide Biochemistry and Physiology*, 201: 105901
4. Mian G., **Musetti R.**, Belfiore N., Boscaro D., Lovat L., Tomasi D. (2023). Chitosan application reduces downy mildew severity on grapevine leaves by positively affecting gene expression pattern. *Physiological and Molecular Plant Pathology*, 125:102025.
<https://doi.org/10.1016/j.pmpp.2023.102025>
5. Bolzonello A., Morbiato L., Tundo S., Sella L., Baccelli I., Echeverrigaray S., **Musetti R.**, De Zotti M., Favaron F. (2023). Peptide analogs of a Trichoderma peptaibol effectively control downy mildew in the vineyard. *Plant Disease*, <https://doi.org/10.1094/PDIS-09-22-2064-RE>.
6. **Musetti R.***, Pagliari L., Mian G., Oliveira-Cantao F. R., Bernardini C., Santi S., van Bel A.J.E. (2023). The sieve-element endoplasmic reticulum: a focal point of phytoplasma-host plant interaction?

- Frontiers in Microbiology, 14:1030414. doi: 10.3389/fmicb.2023.1030414
7. Mian, G., Belfiore N., **Musetti R.**, Tomasi D., Cantone P., Lovat L., Lupinelli S., Iacumin L., Celotti E., Golinelli F. (2022). Effect of a triacontanol-rich biostimulant on the ripening dynamic and wine must technological parameters in *Vitis vinifera* cv. 'Ribolla Gialla'. *Plant Physiology and Biochemistry*, 188: 60–69. <https://doi.org/10.1016/j.plaphy.2022.07.032>
 8. Bernardini C., Santi S., Mian G., Levy A., Buoso S., Suh J.H., Wang Y., Vincent C., van Bel A.J.E., **Musetti R.*** (2022). Increased susceptibility to Chrysanthemum Yellows phytoplasma infection in *Atcals7 ko* plants is accompanied by enhanced expression of carbohydrate transporters. *Planta* 256:43-60. <https://doi.org/10.1007/s00425-022-03954-8>
 9. Sara Buoso, **Rita Musetti**, Fabio Marroni, Alberto Calderan, Wolfgang Schmidt, Simonetta Santi (2022). Infection by phloem-limited phytoplasma affects mineral nutrient homeostasis in tomato leaf tissues. *JOURNAL OF PLANT PHYSIOLOGY*, vol. 271: 153659. ISSN: 0176-1617, doi: 10.1016/j.jplph.2022.153659
 10. Tarquini, G., Pagliari, L., Ermacora, P., **Musetti, R.**, Firrao G. (2021). Trigger and suppression of antiviral defenses by grapevine Pinot gris virus (GPGV): novel insights into virus-host interaction. *Molecular Plant-Microbe Interactions* 34 (9): 1010-1023. DOI: [10.1094/MPMI-04-21-0078-R](https://doi.org/10.1094/MPMI-04-21-0078-R)
 11. Pagliari L., Tarquini G., Loschi A., Buoso S., Kapun G., Ermacora P., **Musetti R.***. (2021). Gimme shelter: three-dimensional architecture of the endoplasmic reticulum, the replication site of grapevine Pinot gris virus. *Functional Plant Biology* 48(10) 1074-1085 <https://doi.org/10.1071/FP21084>
 12. Sella L., Govind R., [Caracciolo R.](https://doi.org/10.1038/s41598-020-71660-0), [Quarantin A.](https://doi.org/10.1038/s41598-020-71660-0), [Vu V.V.](https://doi.org/10.1038/s41598-020-71660-0), [Tundo S.](https://doi.org/10.1038/s41598-020-71660-0), Nguyen H.M., Favaron F., **Musetti R.**, [De Zotti M.](https://doi.org/10.1038/s41598-020-71660-0) (2021). Transcriptomic and ultrastructural analyses of *Pyricularia oryzae* treated with fungicidal peptaobol analogs of *Trichoderma trichogin*. *Frontiers in Microbiology* 12: 753202. doi: 10.3389/fmicb.2021.753202.
 13. Bernardini, C., Pagliari, L., De Rosa, V., Almeida-Trapp M., Santi S., Martini M., Buoso S., Loschi A., Loi N., Chiesa F., Mithöfer A., van Bel A. J. E., **Musetti R.***. (2020). Pre-symptomatic modified phytohormone profile is associated with lower phytoplasma titres in an *Arabidopsis seor1ko* line. *Scientific Reports* **10**, 14770 <https://doi.org/10.1038/s41598-020-71660-0>, ISSN:2045-2322.
 14. Colombo M., Masiero S., Rosa S., Caporali E., Toffolatti S.L., Mizzotti C., Tadini L., Rossi F., Pellegrino S., **Musetti R.**, Velasco R., Perazzolli M., Vezzulli S., Pesaresi P. (2020). NoPv1: a synthetic antimicrobial peptide aptamer targeting the causal agents of grapevine downy mildew and potato late blight. *Scientific Reports*, 10:17574. <https://doi.org/10.1038/s41598-020-73027-x> ISSN: 2045-2322
 15. Savian F., Ginaldi F., **Musetti R.**, Sandrin N., Tarquini G., Pagliari L., Firrao G., Martini M., Ermacora P. (2020). Studies on the aetiology of kiwifruit decline: interaction between soil-borne pathogens and waterlogging. *Plant Soil* <https://doi.org/10.1007/s11104-020-04671-5> ISSN: 0032-079X
 16. Brescia F, Marchetti-Deschmann M, **Musetti R**, Perazzolli M, Pertot I, Puopolo G. (2020). The rhizosphere signature on the cell motility, biofilm formation and secondary metabolite production of a plant-associated *Lysobacter* strain. *Microbiological Research* 234: 126424.
 17. Buoso S, Pagliari L, **Musetti R**, Fornasier F, Martini M, Loschi A, Fontanella MC and Ermacora P (2020). With or Without You: Altered Plant Response to Boron-Deficiency in Hydroponically Grown Grapevines Infected by Grapevine Pinot Gris Virus Suggests a Relation Between Grapevine Leaf Mottling and Deformation Symptom Occurrence and Boron Plant Availability. *Frontiers in Plant Science*, 11:226. doi: 10.3389/fpls.2020.00226, ISSN:1664-462X.
 18. Buoso S., Pagliari L., **Musetti R.**, Martini M., Marroni F., Schmidt W., Santi S. (2019). 'Candidatus Phytoplasma solani' interferes with the distribution and uptake of iron in tomato. *BMC Genomics* 20: 703-724.
 19. van Bel AJE, **Musetti R** (2019). Sieve-element biology provides leads for research on phytoplasma lifestyle in plant hosts. *Journal of Experimental Botany* 70(15):3737–3755. DOI:10.1093/jxb/erz172, ISSN:1460-2431.
 20. Tarquini G., De Amicis F., Martini M., Ermacora P., Loi N., **Musetti R.**, Bianchi G.L., Firrao G. (2019). Analysis of new grapevine Pinot gris virus (GPGV) isolates from Northeast Italy provides clues to track the evolution of a newly emerging clade. *Archives of Virology* 164 (6): 1655–1660.

21. Tarquini G., Zaina G., Ermacora P., De Amicis F., Franco-Orozco B., Loi N., Martini M., Bianchi G.L., Pagliari L., Firrao G., de Paoli E., **Musetti R***. (2019) Agroinoculation of Grapevine Pinot Gris Virus in tobacco and grapevine provides insights on viral pathogenesis. PLoS ONE 14(3): e0214010. <https://doi.org/10.1371/journal.pone.0214010>
22. Pagliari L., Buoso S., Santi S., van Bel A.J.E, **Musetti R***. (2018). What Slows Down Phytoplasma Proliferation? Speculations on the Involvement of AtSEOR2 Protein in Plant Defence Signalling. *Plant Signaling & Behavior*, 13:5, e1473666, DOI:10.1080/15592324.2018.1473666
23. Giulia Tarquini, Paolo Ermacora, Gian Luca Bianchi, Francesca De Amicis, Laura Pagliari, Marta Martini, Alberto Loschi, Pasquale Saldarelli, Nazia Loi, **Rita Musetti*** (2018). Localization and subcellular association of Grapevine Pinot Gris Virus in grapevine leaf tissues. *PROTOPLASMA*, 255: 923– 935, ISSN: 0033-183X, doi: 10.1007/s00709-017-1198-5
24. Buonassisi, D., Peressotti, E., Dolzani, C., Clementi, S., Stefanini, M., Perazzolli, M., VELASCO, Riccardo, Vezzulli, S., **Musetti, Rita** (2017). A new in vitro method for the assessment of Plasmopara viticola resistance on grapevine inflorescences. *ACTA HORTICULTURAE*, vol. 1172: 21-26. ISSN: 0567-7572, doi: 10.17660/ActaHortic.2017.1172.4
25. D. Buonassisi, M. Perazzolli, E. Peressotti, A. Tadiello, R. Musetti, R. Velasco, D. Cantù, S. Vezzulli S. (2017). Grapevine downy mildew dual epidemics: a leaf and inflorescence transcriptomics study. *Acta Horticulturae*, vol. 1188: 265-270, doi: 10.17660/ActaHortic.2017.1188.34
26. Pagliari, Laura, Buoso, Sara, Santi, Simonetta, Furch, Alexandra C. U., Martini, Marta, Degola, Francesca, Loschi, Alberto, van Bel, Aart J. E., **Musetti, Rita*** (2017). Filamentous sieve element proteins are able to limit phloem mass flow, but not phytoplasma spread. *JOURNAL OF EXPERIMENTAL BOTANY*, vol. 68, p. 3673-3688, ISSN: 1460-2431, doi: 10.1093/jxb/erx199
27. Paolacci, Anna Rita, Catarcione, Giulio, Ederli, Luisa, Zadra, Claudia, Pasqualini, Stefania, Badiani, Maurizio, **Musetti Rita**, Santi, Simonetta, Ciaffi, Mario (2017). Jasmonate-mediated defence responses, unlike salicylate-mediated responses, are involved in the recovery of grapevine from bois noir disease. *BMC PLANT BIOLOGY*, vol. 17, ISSN: 1471-2229, doi: 10.1186/s12870-017-1069-4
28. MARCHIOL, Luca, MATTIELLO, Alessandro, POSCIC, Filip, FELLET, Guido, ZAVALLONI, Costanza, Carlino, Elvio, **Musetti, Rita** (2016). Changes in Physiological and Agronomical Parameters of Barley (*Hordeum vulgare*) Exposed to Cerium and Titanium Dioxide Nanoparticles. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH*, vol. 13, p. 1-18, ISSN: 1660-4601, doi: 10.3390/ijerph13030332
29. De Marco F., Pagliari L., Degola F., S . V. BUXA, Loschi A., Dinant S., R. Le Hir, Morin H., Santi S., **Musetti R.*** (2016). Combined microscopy and molecular analyses show phloem occlusions and cell wall modifications in tomato leaves in response to ‘Candidatus Phytoplasma solani’. *JOURNAL OF MICROSCOPY*, vol. 263, p. 212-225, ISSN: 0022-2720, doi: 10.1111/jmi.12426
30. Mattiello Alessandro, Pošćić Filip, Fellet Guido, Zavalloni Costanza, Fontana Marta, Piani Barbara, Vischi Massimo, Miceli Fabiano, **Musetti Rita**, Marchiol Luca (2016). Engineered nanomaterials and crops: Physiology and growth of barley as affected by nanoscale cerium oxide. *ITALIAN JOURNAL OF AGRONOMY*, vol. 11, p. 149-157, ISSN: 1125-4718, doi: 10.4081/ija.2016.725
31. Buxa Stefanie V, Pagliari Laura, **Musetti Rita*** (2016). Epifluorescence microscopy imaging of phytoplasmas in embedded leaf tissues using DAPI and SYTO13 fluorochromes. *MICROSCOPIE*, vol. 1, p. 49-56
32. Pagliari Laura, Martini Marta, Loschi Alberto, **Musetti Rita*** (2016). Looking inside phytoplasma-infected sieve elements: A combined microscopy approach using *Arabidopsis thaliana* as a model plant. *MICRON*, vol. 89, p. 87-97, ISSN: 09684328, doi: 10.1016/j.micron.2016.07.007
33. **Musetti Rita***, Pagliari Laura, Buxa Stefanie V., Degola Francesca, De Marco Federica, Loschi Alberto, Kogel Karl-Heinz, van Bel Aart J E (2016). OHMS***: phytoplasmas dictate changes in sieve- element ultrastructure to accommodate their requirements for nutrition, multiplication and translocation. *PLANT SIGNALING & BEHAVIOR*, ISSN: 1559-2324, doi: 10.1080/15592324.2016.1138191
34. FELLET, Guido, POSCIC, Filip, Licen, Sabina, MARCHIOL, Luca, **Musetti, Rita**, Tolloi, Arianna, Barbieri, Pierluigi, ZERBI, Giuseppe (2016). PAHs accumulation on leaves of six evergreen urban shrubs: A field experiment. *ATMOSPHERIC POLLUTION RESEARCH*, vol. 7, p. 915-924, ISSN: 1309- 1042, doi: 10.1016/j.apr.2016.05.007

35. Tomada Selena, Puopolo Gerardo, Perazzolli Michele, **Musetti Rita**, Loi Nazia, Pertot Ilaria (2016). Pea Broth Enhances the Biocontrol Efficacy of *Lysobacter capsici* AZ78 by Triggering Cell Motility Associated with Biogenesis of Type IV Pilus. *FRONTIERS IN MICROBIOLOGY*, vol. 7, ISSN: 1664- 302X, doi: 10.3389/fmicb.2016.01136
36. Aryan Amal, **Musetti Rita**, Riedle-Bauer Monika, Brader Günter (2016). Phytoplasma Transmission by Heterologous Grafting Influences Viability of the Scion and Results in Early Symptom Development in Periwinkle Rootstock. *JOURNAL OF PHYTOPATHOLOGY*, vol. 164, p. 631-640, ISSN: 1439-0434, doi: 10.1111/jph.12486
37. Osler Ruggero, Borselli Stefano, Ermacora Paolo, Ferrini Francesca, Loschi Alberto, Martini Marta, Moruzzi Serena, **Musetti Rita***, Loi Nazia (2016). Transmissible tolerance to European stone fruit yellows (ESFY) in apricot: cross-protection or a plant mediated process?. *PHYTOPARASITICA*, vol. 44, p. 203-211, ISSN: 03342123, doi: 10.1007/s12600-016-0509-2
38. Mattiello A., Filippi A., Pošćić F., **Musetti R.**, Salvatici M., Giordano C., Vischi M., Bertolini A., Marchiol L. (2015). Evidence of phytotoxicity and genotoxicity in *Hordeum vulgare* L. exposed to CeO₂ and TiO₂ nanoparticles. *FRONTIERS IN PLANT SCIENCE*, ISSN: 1664-462X, doi: 10.3389/fpls.2015.01043
39. Buxa Stefanie V, Degola Francesca, Polizzotto Rachele, De Marco Federica, Loschi Alberto, Kogel Karl-Heinz, di Toppi Luigi Sanità, van Bel Aart J. E., **Musetti Rita*** (2015). Phytoplasma infection in tomato is associated with re-organization of plasma membrane, ER stacks, and actin filaments in sieve elements. *FRONTIERS IN PLANT SCIENCE*, vol. 6, p. 650-660, ISSN: 1664-462X, doi: 10.3389/fpls.2015.00650
40. R. Osler, S. Borselli, P. Ermacora, A. Loschi, M. Martini, **R. Musetti***, N. Loi (2014). Acquired Tolerance in Apricot Plants that Stably Recovered from European Stone Fruit Yellows. *PLANT DISEASE* (ISSN:0191-2917) Vol. 98, pp. 492 – 496.
41. Elena Venir, Manuela Del Torre, Vincenzo Cunsolo, Rosaria Saletti, **Rita Musetti**, Mara Lucia Stecchini (2014). Involvement of alanine racemase in germination of *Bacillus cereus* spores lacking an intact exosporium. *Archives of Microbiology* (ISSN 0302-8933), 196:79-85.
42. **R Musetti***, Paolo Ermacora, Marta Martini, Nazia Loi, Ruggero Osler (2013). What can we learn from the phenomenon of “recovery”? *PHYTOPATHOGENIC MOLLI CUTES* (ISSN: 2249-4669), Vol 3, pp. 63 – 65.
43. Santi S, De Marco F, Polizzotto R, Grisan S, **Musetti R*** (2013). Recovery from stolbur disease in grapevine involves changes in sugar transport and metabolism. *FRONTIERS IN PLANT SCIENCE* (ISSN:1664-462X), vol 4: pp. 171 – 182.
44. Santi S., S Grisan; A Pierasco; F De Marco; **Musetti R** (2013). Laser microdissection of grapevine leaf phloem infected by stolbur reveals site-specific gene responses associated to sucrose transport and metabolism. *PLANT, CELL & ENVIRONMENT* (ISSN:1365-3040) 36: 343-355.
45. **Musetti R***; Farhan K.; De Marco F.; Polizzotto R.; Paolacci A.; Mario Ciaffi M.; Ermacora P.; Grisan S.; Santi S.; Osler R. (2013). Differentially-regulated defence genes in *Malus domestica* during phytoplasma infection and recovery. *EUROPEAN JOURNAL OF PLANT PATHOLOGY* (ISSN:0929-1873) pp. 13 - 19 Vol. 136.
46. **Musetti R***; Buxa S.V.; De Marco F.; Loschi A.; Polizzotto R.; Kogel K-H.; van Bel A.J.E. (2013). Phytoplasma-triggered Ca²⁺ influx is involved in sieve-tube blockage. *MOLECULAR PLANT-MICROBE INTERACTIONS* (ISSN:0894-0282), 26: 379-386.
47. Zafari S.; Niknam V.; **Musetti R**; Noorbakhsh S.N. (2012). Effect of phytoplasma infection on metabolite content and antioxidant enzyme activity in lime (*Citrus aurantifolia*). *ACTA PHYSIOLOGIAE PLANTARUM*, 34: 561-568.
48. Polizzotto R; Andersen B; Martini M; Grisan S; Assante G; **Musetti R*** (2012). A polyphasic approach for the characterization of endophytic *Alternaria* strains isolated from grapevines. *JOURNAL OF MICROBIOLOGICAL METHODS* (ISSN:0167-7012) pp. 162 - 171 Vol. 88.
49. Patti T; Bembi B; Cristin P; Mazzarol F; Secco E; Pappalardo C; **Musetti R**; Martinuzzi M; Versolatto S; Cariati R; Dardis A; Marchetti S (2012). Endosperm-specific expression of human acid beta-glucosidase in a waxy rice. *RICE* (ISSN:1939-8425) pp. 34-49 Vol. 5.
50. Sanità di Toppi L; Vurro E; De Benedictis M; Falasca G; Zanella L; **Musetti R**; Lenucci M S; Dalessandro G; Altamura M M (2012). A bifasic response to cadmium stress in carrot: Early acclimatory

- mechanisms give way to root collapse further to prolonged metal exposure. *PLANT PHYSIOLOGY & BIOCHEMISTRY* (ISSN:0254-3591) pp. 269 - 279 Vol. 58.
51. **Musetti R*** (2012). Recovery: basi fisiologiche e molecolari. *Petria* 22 (1): 22-25.
 52. **Rita Musetti***, Federica DE MARCO, Khaled FARHAN, Rachele POLIZZOTTO, Simonetta SANTI, Paolo ERMACORA, Ruggero OSLER (2011). Phloem-specific protein expression patterns in apple and grapevine during phytoplasma infection and recovery. *Bulletin of Insectology* 64: 211-212.
 53. Grisan S., Martini M., **Musetti R.**, Osler R. (2011). Development of a molecular approach to describe the diversity of fungal endophytes in either phytoplasma-infected, recovered or healthy grapevines. *Bulletin of Insectology* 64: 207-208.
 54. Moser M., **Musetti R.**, Velasco R., Jaraush W. (2011). Gene expression analysis and cytochemical investigations in 'Candidatus Phytoplasma mali'-resistant and susceptible *Malus* genotypes grown in vitro. *Bulletin of Insectology* 64: 161-162.
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