

Luca Sella - Pubblicazioni

PUBBLICAZIONI SU RIVISTE INTERNAZIONALI ISI

1. **Sella L.**, Gazzetti K., Castiglioni C., Schäfer W., D'Ovidio R., Favaron F. (2015). The *Fusarium graminearum* Xyr1 transcription factor regulates xylanase expression but is not essential for fungal virulence. *Plant Pathology*, doi: 10.1111/ppa.12456.
2. Tundo S., Moschetti I., Faoro F., Lafond M., Giardina T., Favaron F., **Sella L.**, D'Ovidio R. (2013). *Fusarium graminearum* produces different xylanases causing host cell death that is prevented by the xylanase inhibitors XIP-I and TAXI-III in wheat. *Plant Science*, 240: 161-169.
3. Moschetti I., Faoro F., Moro S., Sabbadin D., **Sella L.**, Favaron F., D'Ovidio R. (2014). The xylanase inhibitor TAXI-III counteracts the necrotic activity of a *Fusarium graminearum* xylanase *in vitro* and in durum wheat transgenic plants. *Molecular Plant Pathology*, 16: 583–592.
4. Kalunke R.M., Cenci A., Volpi C., O'Sullivan D.M., **Sella L.**, Favaron F., Cervone F., De Lorenzo G., D'Ovidio R. (2014). The pgip family in soybean and three other legume species: evidence for a birth-and-death model of evolution. *BMC Plant Biology*, 14: 189. DOI: 10.1186/s12870-014-0189-3.
5. **Sella L.**, Gazzetti K., Castiglioni C., Schäfer W., Favaron F. (2014). *Fusarium graminearum* possesses virulence factors common to Fusarium head blight of wheat and seedling rot of soybean, but differing in their impact on disease severity. *Phytopathology*, 104: 1201-1207.
6. Moschetti I., Tundo S., Janni M., **Sella L.**, Gazzetti K., Tauzin A., Giardina T., Masci S., Favaron F., D'Ovidio R. (2013). Constitutive expression of the xylanase inhibitor TAXI-III delays Fusarium Head Blight symptoms in durum wheat transgenic plants. *Molecular Plant-Microbe Interactions*, 26: 1464-1472.
7. **Sella L.**, Gazzetti K., Faoro F., Odorizzi S., D'Ovidio R., Schäfer W., Favaron F. (2013). A *Fusarium graminearum* xylanase expressed during wheat infection is a necrotizing factor but is not essential for virulence. *Plant Physiology and Biochemistry*, 64: 1-10.
8. Scattolin L., Dal Maso E., Mutto Accordi S., **Sella L.**, Montecchio L. (2012). Detecting asymptomatic ink-diseased chestnut trees by the composition of the ectomycorrhizal community. *Forest Pathology*, 42: 501–509.
9. Ferrari S.^a, **Sella L.**^a, Janni M.^a, De Lorenzo G., Favaron F., D'Ovidio R. (2012). Transgenic expression of Polygalacturonase-Inhibiting Proteins in Arabidopsis and wheat increases

- resistance to the flower pathogen *Fusarium graminearum*. *Plant Biology*, 14 (Supplement 1): 31-38. (^a Authors equally contributing to the work).
10. Kalunke R.M., Janni M., **Sella L.**, David P., Geffroy V., Favaron F., D'Ovidio R. (2011). Transcript analysis of the bean polygalacturonase inhibiting protein gene family reveals that Pvpqip2 is expressed in the whole plant and is strongly induced by pathogen infection. *Journal of Plant Pathology*, 93: 141-148.
 11. **Sella L.**, Cosmi T., Giacomello F., Saccardi A., Favaron F. (2010). First report of *Fusarium oxysporum* on Dipladenia sp. in Italy. *Journal of Plant Pathology*, 92: 543-543.
 12. Favaron F., Lucchetta M., Odorizzi S., Da Cunha A.T.P. and **Sella L.** (2009). The role of grape polyphenols on trans-resveratrol activity against *Botrytis cinerea* and of fungal laccase on the solubility of putative grape PR proteins. *Journal of Plant Pathology*, 91: 579-588.
 13. Tomassini A., **Sella L.**, Raiola A., D'Ovidio R. and Favaron F. (2009). Characterization and expression of *Fusarium graminearum* endo-polygalacturonases in vitro and during wheat infection. *Plant Pathology*, 58: 556-564.
 14. Janni M., **Sella L.**, Favaron F., Blechl A.E., De Lorenzo G., D'Ovidio R. (2008). The expression of a bean PGIP in transgenic wheat confers increased resistance to the fungal pathogen *Bipolaris sorokiniana*. *Molecular Plant-Microbe Interactions*, 21: 171-177.
 15. Raiola A., **Sella L.**, Castiglioni C., Balmas V., Favaron F. (2008). A single amino acid substitution in highly similar endo-PGs from *Fusarium verticillioides* and related *Fusarium* species affects PGIP inhibition. *Fungal Genetics and Biology*, 45:776-789.
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 17. D'Ovidio R., Roberti S., Di Giovanni M., Capodicasa C., Melaragni M., **Sella L.**, Tosi P., Favaron F. (2006). The characterization of the soybean polygalacturonase inhibiting proteins (*Pqip*) gene family reveals that a single member is responsible for the activity detected in soybean tissue. *Planta*, 224: 633-645.
 18. **Sella L.**, Tomassini A., D'Ovidio R., Favaron F. (2005). Expression of two *Sclerotinia sclerotiorum* endo-pg genes correlates with endo-polygalacturonase activity during *Glycine max* infection. *Journal of Plant Pathology*, 87: 199-205.
 19. Zuppini A., Navazio L., **Sella L.**, Castiglioni C., Favaron F., Mariani P. (2005). An endopolygalacturonase from *Sclerotinia sclerotiorum* induces a Ca²⁺-mediated signalling and programmed cell death in soybean cells. *Molecular Plant-Microbe Interactions*, 18: 849-855.

20. **Sella L.**, Castiglioni C., Roberti S., D'Ovidio R., Favaron F. (2004). An endo-polygalacturonase (PG) of *Fusarium moniliforme* escaping inhibition by plant polygalacturonase-inhibiting proteins (PGIPs) provides new insights into the PG-PGIP interaction. *FEMS Microbiology Letters*, 240: 117-124.
21. Favaron F., **Sella L.**, D'Ovidio R. (2004). Relationships among endo-polygalacturonase, oxalate, pH and plant polygalacturonase-inhibiting protein (PGIP) in the interaction between *Sclerotinia sclerotiorum* and soybean. *Molecular Plant-Microbe Interactions*, 17: 1402-1419.

PUBBLICAZIONI BREVI SU RIVISTE INTERNAZIONALI ISI

1. **Sella L.** (2005). Fungal pathogens can elude the inhibition by host plant polygalacturonase inhibiting proteins (PGIPs) by different mechanisms. *Journal of Plant Pathology*, 87 (special issue 4): 265.

PUBBLICAZIONI PER ESTESO IN PROCEEDINGS DI CONGRESSI

1. D'Ovidio R., Roberti S., Melaragni M., Capodicasa C., **Sella L.**, Favaron F. (2002). Characterization of two closely linked soybean *pgip* genes and transcript regulation following pathogen infection and wounding. Proceedings of 6th Congress of the European Foundation for Plant Pathology. *Plant Protection Science*, 38 (Special issue 2): 480-482.
2. Favaron F., D'Ovidio R., Melaragni M., **Sella L.**, Destro T. (2000). PGIP activities and PGIP gene family structure in soybean and leek. Proceedings of the 5th Congress of the European Foundation for Plant Pathology, pp. 346-348.

ABSTRACTS PRESENTATI A CONGRESSI

1. **L. Sella**, S. Odorizzi, S. Lengyel, A. Quarantin, C. Castiglioni, J.A.L. van Kan, F. Favaron (2015). The activity of the *Botrytis cinerea* endo-polygalacturonase PG1 is detected in berry skins and is required for full virulence during grape infection. XXI National Meeting of the Italian Society for Plant Pathology (SIPAV). Torino, 21-23 settembre 2015.
2. A. Quarantin, F. Favaron, **L. Sella** (2015). Cerato platanins (CP) of *Fusarium graminearum* induce defense responses in plant and are not essential for fungal virulence. XXI National Meeting of the Italian Society for Plant Pathology (SIPAV). Torino, 21-23 settembre 2015.
3. M.C. Paccanaro, **L. Sella**, I. Moscetti, R. D'Ovidio, F. Favaron (2015). Expression of a wheat xylanase inhibitor and of a *Fusarium graminearum* xylanase in plants increase

- resistance to pathogens. XXI National Meeting of the Italian Society for Plant Pathology (SIPAV). Torino, 21-23 settembre 2015.
4. R. Marcato, S. Lengyel, M. Lucchetta, **L. Sella**, F. Favaron (2015). Fungitoxic activity of eugenol against *Botrytis cinerea* may be mediated by fungal peroxidase. XXI National Meeting of the Italian Society for Plant Pathology (SIPAV). Torino, 21-23 settembre 2015.
 5. R. Marcato, **L. Sella**, S. Vincenzi, M. Sturlese, S. Moro, F. Favaron (2015). Fungal β -glucans protect the fungal cell from plant thaumatin-like proteins and chitinase. XXI National Meeting of the Italian Society for Plant Pathology (SIPAV). Torino, 21-23 settembre 2015.
 6. De Lucchi C., Hanson L., **Sella L.**, De Biaggi M., Mcgrath M., Panella L., Stevanato P. (2015). Variable disease susceptibility and root rot response in sugar beet lines from Italy and the United States to isolates of *Fusarium oxysporum* f. sp. *betae*. 2015 General Meeting American Society of Sugar Beet Technologists (ASSBT). Clearwater Beach, Florida.
 7. De Lucchi C., Hanson L.E., **Sella L.**, De Biaggi M., McGrath J.M., Panella L., Stevanato P. (2015). Screening for *Fusarium oxysporum* f. sp. *betae* tolerance in sugar beet. 13th European Fusarium Seminar. Martina Franca (TA) 10-14 Maggio 2015.
 8. De Lucchi C., Hanson L., **Sella L.**, Broccanello C., Mcgrath M., Panella L., Stevanato P. (2014). Improving key root traits in sugar beet: Fusarium tolerance. 74th IIRB Congress. Dresden (Germany).
 9. Lengyel S., Rasclé C., **Sella L.**, Favaron F., Choquer M. (2014). SNF1 protein kinase is important for growth and full virulence of *Botrytis cinerea*. XX National Meeting of the Italian Society for Plant Pathology (SIPAV). Pisa, 22-24 settembre 2014.
 10. Moscetti I., **Sella L.**, Faoro F., Moro S., Favaron F. and D'Ovidio R. (2014). The wheat xylanase inhibitor TAXI-III interacts with a xylanase secreted by *Fusarium graminearum* and limits wheat cell death. **Oral communication**. XX National Meeting of the Italian Society for Plant Pathology (SIPAV). Pisa, 22-24 settembre 2014.
 11. Moscetti I., **Sella L.**, Faoro F., Favaron F., and D'Ovidio R. (2014). The xylanase inhibitor TAXI-III limits cell death induced by a xylanase secreted by *Fusarium graminearum* during wheat infection. P430. XVI International Congress on Molecular Plant-Microbe Interactions (IS-MPMI). Rhodes (Greece), 6-10 luglio 2014.
 12. Lucchetta M., Marcato R., Lengyel S., **Sella L.**, Favaron F. (2013). Inhibitory activity of essential oils components against the fungal plant pathogen *Botrytis cinerea*. In: Comitato Scientifico I Congresso SIROE. I Congresso Nazionale della Società Italiana per la Ricerca

- sugli Oli Essenziali (SIROE). NATURAL 1, vol. 1, p. 55-56, GV Edizioni, ISSN: 1721-1425, Roma, 15-17 Novembre 2013.
13. **Sella L.**, Gazzetti K., Castiglioni C., Marcato R., Paccanaro M.C., Schäfer W., Favaron F. (2013). Soybean seedlings as a new model to study the virulence factors of *Fusarium graminearum*. XIX National Meeting of the Italian Society for Plant Pathology (SIPAV). Padova, 23-25 settembre 2013.
 14. Lengyel S., **Sella L.**, Lucchetta M., Marcato R., Choquer M., Favaron F. (2013). Effect of structurally related essential oil components on growth of *Botrytis cinerea*. XVI International Botrytis Symposium. Locorotondo (BA), Italy, 23-28 giugno 2013.
 15. D'Ovidio R., Moscetti I., Janni M., Volpi C., Raviraj K., Tundo S., **Sella L.**, Favaron F. (2013). Durum wheat improvement against fungal pathogens by using protein inhibitors of cell wall degrading enzymes. International Symposium Genetics and Breeding of Durum Wheat. Roma, Italy, 27-30 maggio 2013.
 16. **Sella L.**, Gazzetti K., Janni M., Volpi C., Schafer W., D'Ovidio R., Favaron F. (2012). A pectin methyl esterase is a virulence factor of *Fusarium graminearum* when infecting both common and durum wheat. XVIII National Meeting of the Italian Society for Plant Pathology (SIPAV). Sassari, 24-26 settembre 2012.
 17. **Sella L.**, Gazzetti K., Castiglioni C., D'Ovidio R., Faoro F., Favaron F. (2012). A *Fusarium graminearum* endo-xylanase expressed during wheat infection is a necrotizing factor. 12th Congress of "Federazione Italiana Scienze della Vita" (FISV). Roma, 24-27 settembre 2012. Poster session II: P17.6.
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 19. Moscetti I., Tundo S., Janni M., **Sella L.**, Gazzetti K., Giardina T., Favaron F., D'Ovidio R. (2012). Overexpression of the xylanase inhibitor TAXI-III reduces Fusarium Head Blight symptom in durum wheat. Proceedings of the 56th Italian Society of Agricultural Genetics (SIGA) Annual Congress. Perugia, 17-20 settembre 2012. ISBN 978-88-904570-1-2.
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 21. **Sella L.**, Odorizzi S., Castiglioni C., Lucchetta M., D'Ovidio R., Favaron F. (2011). Characterization of *Botrytis cinerea* polygalacturonases and laccases during grape berries

- infection. Botrytis-Sclerotinia Post-Genome Workshop. Lyon (France), 15-17 september 2011.
22. **Sella L.**, Gazzetti K., Faoro F., Raiola A., D'Ovidio R., Schäfer W., Favaron F. (2011). Characterization of a *Fusarium graminearum* xylanase expressed during wheat infection and knock-out of its encoding gene. XVII National Meeting of the Italian Society for Plant Pathology (SIPAV). Bologna, 12-14 settembre 2011. In: Journal of Plant Pathology, 93 (4, supplement): S4.57.
 23. **Sella L.**, Rocchi V., Castiglioni C., Schäfer W., D'Ovidio R., Favaron F. (2010). Involvement of fungal pectin methylesterase activity in the interaction between *Fusarium graminearum* and wheat. XVI National Meeting of the Italian Society for Plant Pathology (SIPAV). Firenze, 14-17 settembre 2010 (p. 9 and **oral communication**). In: Journal of Plant Pathology, 92 (4, supplement): S4.66.
 24. Lucchetta M., Odorizzi S., Pais Da Cunha A.T., **Sella L.**, Favaron F. (2010). Proteins from grape berries infected by *Botrytis cinerea* are likely removed through an insolubilization mechanism rather than by proteolytic activity. In: Proceedings Macrowine 2010. Torino, 16-18 giugno 2008.
 25. **Sella L.**, Giacomello F., Schäfer W. and Favaron F. (2009). A *Fusarium graminearum* polygalacturonase gene is required for full virulence during wheat infection. XV National meeting of the Italian Society for Plant Pathology (SIPAV). Locorotondo (BA), 28 september - 1 october 2009 (p. 15 and **oral communication**). In: Journal of Plant Pathology, 91 (4, supplement): S4.41.
 26. Favaron F., Lucchetta M., Odorizzi S., Pais Da Cunha A.T., **Sella L.** (2009). *Botrytis cinerea* laccase abolishes resveratrol toxicity and reduces grape PR proteins solubility. XV National meeting of the Italian Society for Plant Pathology (SIPAV). Locorotondo, 28 settembre-1 ottobre 2009, p. 57. In: Journal of Plant Pathology, 91 (4, supplement): S4.60-S4.61.
 27. **Sella L.**, Tomassini A., Giacomello F., Raiola A., D'Ovidio R., Schäfer W. and Favaron F. (2008). Gene disruption approach to investigate the role of *Fusarium graminearum* and *Fusarium verticillioides* polygalacturonases during plant infection. X International *Fusarium* and *Fusarium* Genomics Workshop. Alghero, Italy. 30 August – 2 September 2008. Journal of Plant Pathology, 90 (3, supplement): 36.
 28. Janni M., Benedettelli S., Blechl A.E., Favaron F., **Sella L.**, Fagioni M., Zolla L. and D'Ovidio R. (2008). Wheat transgenic plants expressing a bean PGIP support a role for polygalacturonase activity in the initial stage of wheat infection by *Fusarium graminearum*.

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 31. Tomassini A., **Sella L.**, Schaefer W., D'Ovidio R., Favaron F. (2007). Characterization of *Fusarium graminearum* pectic enzymes secreted in liquid culture and during wheat infection. XIII International Congress on Molecular Plant-Microbe Interactions. Sorrento (Italy). 21-27 July 2007. p. 217.
 32. Raiola A., **Sella L.**, Castiglioni C., Balmas V., Favaron F. (2006). Characterization of endopolygalacturonase of species belonging to the *Gibberella fujikuroi* complex. 9th European Fusarium Seminar EFS9, 19 - 22 settembre 2006, Wageningen (Olanda).
 33. Raiola A., **Sella L.**, Castiglioni C., Balmas V., Tomassini A., Favaron F. (2006). *Fusarium verticillioides* and related species of the *Gibberella fujikuroi* complex secrete an endopolygalacturonase insensitive to monocot PGIPs. In: Journal of Plant Pathology. XIII SIPAV Annual Meeting. Foggia, 12-16 settembre 2006.
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 35. Alberti I., Vibio M., Sella L., Dal Prà M., Pisi A., Pancaldi D. (2006). Study on the presence of *Fusarium* spp. on rice reproduction seeds in Northern Italy. Atti delle Giornate Fitopatologiche. Biennial meeting of Italian Plant Protection Association. Riccione (Italy), 27-29 Marzo 2006.
 36. Favaron F., Ferrari S., Raiola A., **Sella L.** (2005). Induction of resistance in plants to fungal pathogens. VII FISV Annual Meeting. Riva del Garda (TN), 22-25 september 2005 (p. E 4.2).
 37. Tomassini A., Di Giovanni M., Roberti S., Janni M., **Sella L.**, Favaron F. and D'Ovidio R. (2005). Differential RNA transcript accumulation of *pgip* members during normal growth

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38. Janni M., **Sella L.**, Favaron F., Blechl A.E., De Lorenzo G., D'Ovidio R. (2005). Overexpression of a bean PGIP in transgenic wheat confers increased resistance to fungal pathogen. XII International Congress on Molecular Plant-Microbe Interactions, Merida (Mexico) 14-19 December 2005.
39. Zuppini A., Navazio L., **Sella L.**, Castiglioni C., Favaron F., Mariani P. (2005). Ca²⁺-mediated signalling and programmed cell death in soybean cells by an endopolygalacturonase from *Sclerotinia sclerotiorum*. XVII International Botanical Congress. 17-23 july 2005 (pp. 261-262).
40. Ferrari S., **Sella L.**, De Lorenzo G., Favaron F. (2004). Role of polygalacturonase-inhibiting proteins in the *Arabidopsis thaliana*-*Fusarium graminearum* interaction. In: Journal of Plant Pathology. XI SIPAV Annual Meeting. Milano, 29 september-1 october 2004 (p. 12).
41. **Sella L.**, Raiola A., D'Ovidio R., Favaron F. (2004). Fungal strategies to elude polygalacturonase inhibition by plant PGIPs. In: Journal of Plant Pathology. XI SIPAV Annual Meeting. Milano, 29 september-1 october 2004 (p. 76).
42. **Sella L.**, Roberti S., Di Giovanni M., Favaron F., D'Ovidio R. (2004). The soybean PGIP family contains members with different inhibiting properties and regulation following *Sclerotinia sclerotiorum* infection. SIFV-SIGA Joint Congress. Lecce, 15-18 september 2004 (p. 59 and **oral communication**).
43. Janni M., Roberti S., Pontiggia D., Cavallaro D., Favaron F., **Sella L.**, Cervone F., De Lorenzo G., D'Ovidio R. (2004). Structural and function features of wheat and rice polygalacturonase inhibiting proteins (PGIPs) and addition of novel PGIP recognition capabilities in wheat. SIFV-SIGA Joint Congress. Lecce, 15-18 september 2004 (p. 58).
44. Janni M., Roberti S., Capodicasa C., Pontiggia D., Favaron F., **Sella L.**, Lin J., Blechl A.E., Cervone F., De Lorenzo, G. D'Ovidio R. (2004). Wheat and rice contains Polygalacturonase Inhibiting Proteins (PGIPs) and the over expression of a bean PGIP in wheat limit fungal pathogen infection. X Cell Wall Meeting. Sorrento, 29 august- 3 september 2004 (p. 33.8).
45. **Sella L.**, Roberti S., Castiglioni C., D'Ovidio R., Favaron F. (2003). Polygalacturonase from an isolate of *Fusarium moniliforme* escapes inhibition by plant PGIPs. Proceedings of the X Annual Meeting of Italian Plant Pathology Society. Journal of Plant Pathology (Special Issue 4), 85: 290.
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