

University Academic Curriculum Vitae

Personal information

Name: **Selena Tomada**
 Date of birth: 13.10.1989
 Nationality: Italian
 E-Mail: selena.tomada@unibz.it

Education since leaving school

- 2011, Bachelor's degree in Agricultural Science, University of Udine
- 2013, Master's degree in Agricultural Science and Technology, University of Udine
- 2017, Doctoral degree in Agricultural Science and Biotechnology with specialization in Phytopathology, University of Udine in cooperation with E. Mach Foundation

Present appointment

- Title of appointment: Junior Researcher RTD (AGR/12)
- Start of appointment: October 1st 2019
- Employer: Faculty of Science and Technology, Free University of Bozen/Bolzano
- Brief description of responsibilities: Scientific research, manuscript preparation, project fundraising, teaching, coordination of undergraduate and graduate students.

Professional experience

From / to	Job title	Name of academic Institution	Academic level	responsibilities
01.03.2017 31.08.2019	Researcher	Laimburg Research Center for Agriculture and Forestry, Vadena (BZ) - Italy	PhD	Coordination of the agronomic work package of the Pinot Blanc Project. Set up of the experiments, sampling, data analysis, supervision of interns and Master's students. Participation at national and international conferences. Writing of technical reports and peer-reviewed papers.
01.01.2014 31.12.2016	PhD Student in Agricultural Science and Biotechnology	University of Udine in cooperation with Fondazione Edmund Mach (TN) - Italy	Master's degree	Research in plant pathology, microbiology, biotechnology: Set up of the experiments, sampling, data analysis, supervision of interns and Bachelor's students. Participation at national and international conferences. Writing of technical reports and peer-reviewed papers.
01.07.2016 12.09.2016	Intern in Registration Development Department	Bi-PA Biological Products for Agriculture, Londerzeel-Belgium	Master's degree	Research in plant pathology, microbiology: Development of a biological product against the Esca diseases complex, field and laboratory trials of biological products (efficacy tests), active substances dossier revision
01.01.2012 30.04.2012	Technician	SICIT 2000 S.p.A Chiampo (VI) - Italy	Bachelor's degree	Research in plant physiology, plant responses to abiotic stresses: Development of fertilizers based on hydrolyzed protein for plant nutrient deficiency
01.03.2011 31.08.2011	Intern	Azienda Agraria "Antonio Servadei" Udine (UD) - Italy	Higher education degree	Research in plant physiology: plant abiotic stressors (water deficit, nutrient deficiency)

Experience in academic teaching

- Teaching activity in the course Plants pathology defence in vineyards in mountain areas (3 CFU) in Master in Viticulture, enology and wine marketing.
- Teaching assistant in Phytopathology (laboratory exercises).
- Postgraduate supervision: (RTD level) one master students, sector grapevine phytopathology. (PhD level): 1 student (Master's thesis), sector grapevine physiology; 1 student (Bachelor's thesis), study on the mode of action of biological plant protection products; supervision of 3 students during their university-internship

Other academic responsibilities

- Organization of JuniorUNI-day: Warum werden Äpfel faul? (uniBZ 21.01.2020)
- Organization of Joint Research Seminar: "Alla scoperta della qualità del Pinot Bianco" (Laimburg Research Center for Agriculture and Forestry, 29.05.2019)

Publications

Puopolo, G., Tomada, S. and Pertot, I. (2018), The impact of the omics era on the knowledge and use of *Lysobacter species* to control phytopathogenic microorganisms. *J. Appl. Microbiol.*, 124: 15-27. <https://doi.org/10.1111/jam.13607>
* IF: 2.160; CiteScore: 2.41; Number of Citations: 5.

Tomada, S. (2017). A genomic and transcriptomic approach to characterize a novel biocontrol bacterium *Lysobacter capsici* AZ78. PhD Thesis at the University of Udine; <https://openpub.fmach.it/handle/10449/37925>

Tomada, S., Sonogo, P., Moretto, M., Engelen, K., Pertot, I., Perazzolli, M., and Puopolo, G. (2017). Dual RNA-Seq of *Lysobacter capsici* AZ78 – *Phytophthora infestans* interaction shows the implementation of attack strategies by the bacterium and unsuccessful oomycete defense responses. *Environ. Microbiol.*, 19(10), 4113-4125. <https://doi.org/10.1111/1462-2920.13861>
* IF: 4.974; CiteScore: 4.83; Number of Citations: 3.

Tomada, S., *Puopolo, G.*, Perazzolli, M., Musetti, R., Loi, N., and Pertot, I. (2016). Pea Broth Enhances the biocontrol efficacy of *Lysobacter capsici* AZ78 by triggering cell motility associated with biogenesis of Type IV pilus. *Front. Microbiol.*, 7, 1136. <https://doi.org/10.3389/fmicb.2016.01136>

* IF: 4,019; CiteScore: 4.19; Number of Citations: 6.

Puopolo, G., Tomada, S., Sonogo, P., Moretto, M., Engelen, K., Perazzolli, M., and Pertot, I. (2016). The *Lysobacter capsici* AZ78 genome has a gene pool enabling it to interact successfully with phytopathogenic microorganisms and environmental factors. *Front. Microbiol.*, 7, 96. <https://doi.org/10.3389/fmicb.2016.00096>

* IF: 4,019; CiteScore: 4.19 ; Number of Citations: 12.

*Impact Factor (IF) was obtained from the Journal Citation Report. The CiteScore and Number of Citations were obtained from Scopus and updated to September 2019.

**International
and National
Conference
Abstracts**

Tomada S., Zejfart M., Hinz F., Lazazzara V., Robatscher P., Pedri U., Haas F. (2019) Effect of climate change on the aromatic profile of Pinot Blanc: a case study of South Tyrol. In book of abstracts: 42nd World Congress of Vine & Wine, pp 393. Geneve (Switzerland) 15-19 July 2019.

Tomada S., Lazazzara V., Bianchi F., Zejfart M., Hinz F., Pedri U., Robatscher P., Haas F. (2019) Impact of agronomic and climatic factors on the free amino acids content of grapevine neutral varieties: a case study on Pinot Blanc. In book of abstracts: 21th International Meeting of Viticulture G/ESCO "A multidisciplinary vision towards sustainable viticulture", pp 152. Thessaloniki (Greece) 23-28 June 2019.

Tomada S., Pichler F., Martinelli J., Agati G., Lazazzara V., Zejfart M., Hinz F., Pedri U., Robatscher P., Haas F. (2019) Application of a fluorescence-based method to evaluate the ripening process and quality of Pinot Blanc grape. In book of abstracts: 21th International Meeting of Viticulture G/ESCO "A multidisciplinary vision towards sustainable viticulture", pp 289. Thessaloniki (Greece) 23-28 June 2019.

Lazazzara V., Hinz F., Zejfart M., **Tomada S.**, Pedri U., Haas F., Robatscher P. (2019) Study of volatile organic compounds of South Tyrolean Pinot Blanc must and wines using Solid-Phase Microextraction Gas Chromatography-Time of Flight-Mass Spectrometry (SPME/GC-TOF-MS) analysis. In book of abstracts: OENOIVAS 2019 – 11th International Symposium of Enology of Bordeaux & In Vino Analytica Scientia, pp. 284. Talence Bordeaux (France) 25-28 June 2019.

Lazazzara V., Pedri U., Zejfart M., **Tomada S.**, Haas F., Oberhuber M., Robatscher P. (2019) Differentiation of European Pinot Blanc wines according to volatile organic compounds (VOCs) using Headspace-Solid-Phase Microextraction Gas Chromatography-Time of Flight-Mass Spectrometry (SPME/GC-TOF-MS) analysis. In book of abstracts: OENOIVAS 2019 – 11th International Symposium of Enology of Bordeaux & In Vino Analytica Scientia, pp. 314. Talence Bordeaux (France) 25-28 June 2019.

Zejfart M., Hinz F., Pedri U., Uberegger E., **Tomada S.**, Lazazzara V., Robatscher P., Haas F. (2019) Characterizing the aroma profile of Pinot Blanc: a case study of South Tyrol wine region. In book of abstracts: OENOIVAS 2019 – 11th International Symposium of Enology of Bordeaux & In Vino Analytica Scientia, pp. 407. Talence Bordeaux (France) 25-28 June 2019.

Tomada S., Pichler F., Agati G., Serni E., Lazazzara V., Sanoll C., Pedri U., Robatscher P., Haas F. (2018) Assessing the Grape Quality of cv. Pinot Blanc by a Portable Fluorescence Sensor. World Wine Symposium - The emerging challenge in the wine industry: matching sustainability and new market trends. Palermo (Italy) 21-22 November 2018. (**oral presentation**)

Tomada S., Pichler F., Lazazzara V., Pedri U., Robatscher P., Haas F. (2018) First Insight into the Grape Quality of Pinot blanc cv. in South Tyrol (Italy) during the Age of Climate Change. World Wine Symposium - The emerging challenge in the wine industry: matching sustainability and new market trends. Palermo (Italy) 21-22 November 2018. (**oral presentation**)

Puopolo G., **Tomada S.**, Sonogo P., Moretto M., Engelen K., Pertot I., Perazzolli M. (2018) Designing a dual RNA-Seq approach to dissect the mode of action of biocontrol bacteria against phytopathogenic eukaryotes. Biological and integrated control of plant pathogens IOBC-WPRS Bulletin Vol 133. pp. 115-118. Lleida (Spain) 23-26 April 2018.

Puopolo G., **Tomada S.**, Sonogo P., Moretto M., Engelen K., Perazzolli M., Pertot I. (2017) RNA-Seq unveiled the bacterial mycophagy mechanisms implemented by *Lysobacter capsici* AZ78 interacting with *Phytophthora infestans*. In: Future IPM 3.0 towards a sustainable agriculture: IOBC-WPRS Meeting of the WGs Integrated protection in viticulture, Induced resistance in plants against insects and diseases and Multitrophic interactions in soil, pp. 80-82. Riva del Garda (TN), Italy, 15-20 October 2017.

Brescia F., **Tomada S.**, Palmieri M.C., Giovannini O., Pertot I., Perazzolli M., Puopolo G. (2017) First insights on the ability of a *Lysobacter capsici* member to induce resistance mechanisms in grapevine plants. In: Future IPM 3.0 towards a sustainable agriculture: IOBC-WPRS Meeting of the WGs Integrated protection in viticulture, Induced resistance in plants against insects and diseases and Multitrophic interactions in soil, pp. 134-135. Riva del Garda (TN), Italy, 15-20 October 2017.

Puopolo G., **Tomada S.**, Sonogo P., Moretto M., Engelen K., Pertot I., Perazzolli M. (2017) Dual RNA-Seq unheated the unsuccessful response of a phytopathogenic oomycete to the antagonistic strategies implemented by the biocontrol bacterium *Lysobacter capsici* AZ78. In: 7th Congress of European Microbiologists, FEMS. Valencia (Spain) 09-13 July 2017

Puopolo G., Segarra G., Porcel-Rodriguez E., **Tomada S.**, Giovannini O., Pertot I. (2016) Design of a prototype formulation for the improvement of leaf colonization and plant protection of the biocontrol agent *Lysobacter capsici* AZ78 under field conditions. In Abstract book of XXII Convegno Nazionale Società Italiana di Patologia Vegetale (SIPaV). pp .47. Roma 19-22 September 2016.

Tomada S., Loi N., Pertot I., Puopolo G. (2016) The genome of *Lysobacter capsici* AZ78: a biocontrol agent of *Plasmopara viticola*. PhD EXPO 2016 Università degli studi di Udine. 26 May- 6 June 2016.

Tomada S., Puopolo G., Perazzolli M., Loi N., Pertot I. (2016) Pea broth promotes cell motility and biocontrol activity of *Lysobacter capsici* AZ78 and upregulates genes related to biogenesis of type IV pili. IOBC/WPRS BULLETIN Berlin (Germany) Vol. 177 pp. 9-13. 12-15 September 2016. (**oral presentation**)

Puopolo G., Segarra G., Porcel-Rodriguez E., **Tomada S.**, Giovannini O., Pertot I. (2015) A step-wise approach to formulate biocontrol Gram-negative bacteria for foliar applications and the case study of *Lysobacter capsici* AZ78. In Abstract book of MICROPE International Symposium Microbe-Assisted Crop Production- Opportunities, Challenges & Needs pp 189. Wien. 23-25 November 2015.

Segarra G., Puopolo G., Porcel-Rodriguez E., **Tomada S.**, Giovannini O., Pertot I. (2015) Challenges in the development of a microbial fungicide based on a strain of *Lysobacter capsici*. In Abstract book of XVIII International Plant Protection Congress (IPPC) pp. 452. Berlin 24-27 August 2015.

Tomada S., Puopolo G., Giovannini O., Pertot I. (2015) Selection of biocontrol agents of phytopathogenic oomycetes to be used in protection strategies in combination to low doses of copper in organic farming. In Abstract book of 10th International PGPR workshop. pp 54. Liège (Belgium). 16-19 July 2015.

Segarra G., Puopolo G., Porcel-Rodriguez E., **Tomada S.**, Giovannini O., Pertot I. (2015) Development of biopesticide based on *Lysobacter capsici* AZ78: formulation and fate in the environment. In Abstract book of 10th International PGPR workshop. pp 87. Liège (Belgium). 16- 19 July 2015.

Pertot I., Puopolo G., Segarra G., Giovannini O., **Tomada S.**, Molinatto G. (2015) How to develop a biofungicide based on a bacterial strain: the main steps for turning your discover into a plant protection product. In Abstract book of 10th International PGPR workshop. pp 45. Liège (Belgium). 16-19 July 2015.

Pertot I., Puopolo G., Giovannini O., Longa C., Pasini L., Segarra G., **Tomada S.** (2015) Nontargeted side effect of microbial fungicides on grapevine: fact or fantasy. In: International Conference Plant Health for Sustainable Agriculture (PHSA), Ljubljana, Slovenia, 11-12 May 2015.

Statement of interest

The scientific formation of Dr. Selena Tomada, during her academic studies in the disciplinary area of Agricultural Science, has mainly been focused on plant pathology (AGR/12) and microbiology (AGR/16). In particular, the study of interaction between a biocontrol agent (bacterium) and a phytopathogenic organism (oomycete), and the identification of the mechanism of action and defense responses displayed by the microorganisms were the central topics of the doctorate research activity. During the doctoral studies, Dr. Tomada acquired the knowledge to perform a complete microbiological and molecular characterization of the bacterial strain of interest. Through the study of the genome and the transcriptome of bacteria, oomycetes and plants, and by the application of bioinformatics tools, relative gene expression and RNA-sequencing experiments, Dr. Tomada has deepened and broadened her knowledge in the area of biotechnology. During her academic studies, Dr. Tomada had also the possibility to extend her knowledge in other areas of plant pathology by performing an epidemiological study on European Stone Fruit Yellows in apricot, both in field and under controlled conditions (tunnel). In particular, the application of a plant extract in order to control the phytoplasma vector and the spread of the disease was investigated.

The acquired expertise of Dr. Tomada in phytopathology, epidemiology, microbiology together with the skills to apply different molecular and bioinformatics tools will definitely contribute to carry out research activities on plant epidemiology and molecular interactions between plants and their pathogens. Dr. Tomada demonstrated the capacity to work independently on the set-up of experiments, to conduct laboratory, green-house and field trials, to plan sampling and perform data analysis, as well as to write technical and scientific reports and peer-reviewed papers. Moreover, her teamwork attitude, personal initiative and high motivation together with the abilities of efficiently plan activities, coordinate students and disseminate results (by participation at national and international conferences and production of peer-reviewed papers) are important personal skills that will enable Dr. Tomada to actively contribute to the development of the research sector of Phytopathology at the Free University of Bozen-Bolzano.

Language competence

Mother language: Italian

Other languages:

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken Interaction	Spoken Production	
English	B2	B2	B2	B2	B2
German*	B1	B1	B1	B1	B1

*Goethe-Zertifikat B1, June 2019

I have read and understood the information about the management of my personal data in accordance with the provisions of EU General Data Protection Regulation 2016/679.

Date 22/01/2020