

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

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[Silvia Celletti] CURRICULUM VITAE

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	CELLETTI
NOME	SILVIA
DATA DI NASCITA	[10, 03, 1985]

INSERIRE IL PROPRIO CURRICULUM
(non eccedente le 30 pagine)

University Academic Curriculum Vitae

Personal information



Name: **Silvia Celletti**

Place and date of birth: **Rome, 10/03/1985**

Nationality: **Italian**

E-Mail: cellsil@libero.it

Education since leaving school

- **24/06/2008 Bachelor's degree** in Agricultural Sciences and Technologies curriculum Agricultural Sciences and Technologies (Classe 20), mark 110/110 *cum Laude*; DAFNE - University of Tuscia - Viterbo (Italy).
- **15/11/2012 Master's degree** in Agricultural and Industrial Biotechnologies curriculum Biotechnologies of the Agricultural Productions (Classe LM-7), mark 110/110 *cum Laude*, DAFNE - University of Tuscia - Viterbo (Italy).
- **27/06/2016 PhD** in Sciences and Technologies for the Forest and Environmental Management, title thesis "Crosstalk between sulfur and iron

nutrition” in the Scientific Disciplinary Sector - SSD AGR/13, DAFNE - University of Tuscia - Viterbo (Italy).

Present appointment

- **Research Fellow (Post-Doc)**, SSD AGR/13 (until 15/02/2021); employer: Prof. Stefano Cesco and Prof. Tanja Mimmo (research group of Agricultural Chemistry), Faculty of Science and Technology - Free University of Bolzano-Bozen (Italy).
- Currently I am working and carrying on the EFRE-FESR project entitled “Hydrothermal carbonization of Biogas digestate for hydroPonics: an innovative concept of bio-refinery – HB Ponics”. My research topic regards the evaluation of solid and liquid fraction deriving from hydrothermal carbonization (HTC) process (different digestates are tested) on different plant species in soilless culture systems.
- Co-supervisor of Bachelor’s (L-25) students for their thesis, Faculty of Science and Technology - Free University of Bolzano-Bozen (Italy).

Professional experience

In Italy

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
15/02/2019 to date	Research Fellow (Post-Doc)	Faculty of Science and Technology - Free University of Bolzano-Bozen (Italy)	PhD	The evaluation of solid and liquid fraction deriving from hydrothermal carbonization (HTC) process (different digestates are tested) on different plant species in soilless culture systems
15/11/2018 to 31/12/2018	Post-Doc Temporary Self-Employment Contract	Faculty of Science and Technology - Free University of Bolzano-Bozen (Italy)	PhD	Technical support in arranging of plant species, grown at different nutrient stresses (toxicity and deficiency), and collection, preparation and analysis of plant samples
15/11/2017 to 15/11/2018	Research Fellow (Post-Doc)	Faculty of Science and Technology - Free University of	PhD	Study of the interactions between

		Bolzano-Bozen (Italy)		S and Fe nutrition in Strategy I plants
17/10/2017 to 30/10/2017	High School Teacher	Hotel School I.P.S.E.O.A. " Alessandro Farnese " of Caprarola (Province of Viterbo)	PhD	Subject taught: "Food and Nutrition Science" in the upper first, second, third, fourth and fifth classes
01/06/2016 to 31/07/2017	Scholarship Holder	DAFNE - University of Tuscia - Viterbo (Italy)	PhD	Study of the interactions between S and Fe nutrition in Strategy II plants
01/03/2013 to 29/02/2016	PhD student	DAFNE - University of Tuscia - Viterbo (Italy)	Master's Degree	Study of the crosstalk between sulfur and iron nutrition in plants
03/12/2012 to 28/02/2013	Scholarship Holder	DAFNE - University of Tuscia - Viterbo (Italy)	Master's Degree	Study of the interactions between S and Fe nutrition in Strategy I and II plants
15/05/2011 to 10/08/2011	Trial Officer Assistant	Syngenta S.p.A. via Per Soresina 26020 Casalmorano (CR), (Italy)	Bachelor's Degree	Agronomic surveys, product collection and data entry of horticultural species (different cultivars of melon plants)

Abroad

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
16/03/2009 to 02/09/2009	Intern through the Erasmus Placement Mobility Program for academic students of DAFNE - University of Tuscia - Viterbo (Italy)	Rothamsted Research, West Common Harpenden - London (United Kingdom)	Bachelor's Degree	<p>Use of nucleic acid extension Polymerase Chain Reaction (PCR) technique.</p> <p>Skills achieved regarding experimental design and data analysis and presentation.</p> <p>Participation in several host laboratories, experimental projects from laboratory to field scale within Prof. Malcolm J. Hawkesford's research group.</p>

Experience in academic teaching

Dr. Silvia Celletti is carrying on didactic activities related to the field of Agricultural Chemistry (SSD AGR/13) since the academic year 2016/2017. She has been also teaching in English within Bachelor's courses and international PhD Schools. In detail:

Academic Year 2019/20

- Teaching assistant for the course of **“Elements of chemistry and biochemistry of agrochemicals”** (3 CFU), Master in International Horticulture Science (IMaHS), Free University of Bolzano within the Inter-Universities Consortium UniBZ-UniBO. Teaching language: English. Course held in co-presence with Prof. Youry Pii (responsible of the course). *Are you generally satisfied with the way this course was taught? 100% Generally Yes + Yes.*
- Course of **“Management and use of agrochemicals and their fate in the environment”** (3 CFU), Master in Viticulture, Enology and Wine Marketing, Free University of Bolzano within the Inter-Universities Consortium UniUD-UniPD-UniVR-UniBZ. Teaching language: English. Course held in co-presence with Prof. Youry Pii (responsible of the course). *Less than 5 students have completed the evaluation form.*

Academic Year 2016/2017

- Lectures in Italian (Post-Doc): “Il movimento dell’acqua nel suolo”, within the course “**Biochimica e chimica del suolo con elementi di pedologia**”, Scienze Agrarie e Ambientali (L-25) of Prof. Stefania Astolfi, DAFNE - University of Tuscia - Viterbo (Italy).
- Lectures in Italian (Post-Doc): “Zolfo e ferro nel suolo e nella pianta”, within the course “**Chimica del suolo**”, Scienze e Tecnologie per la Conservazione delle Foreste, della Natura e dell’ambiente (L-25) of Prof. Stefania Astolfi, DAFNE - University of Tuscia - Viterbo (Italy).

Didactic activity at international PhD Schools

- A.Y. 2019/2020 Seminar entitled “**The exploitation of the crosstalk between sulfur and iron to achieve micronutrient-rich crops**” within the SICA Ph.D. Winter School “The role of agricultural chemistry to reconcile soil and environmental quality with food needs”, 11-14 February 2019, Palermo, (Italy).
http://chimicagraria.it/files/congressi/181126_2ndCircular_SICAPhDW/INTERSCHOOL2019.pdf

Bachelor thesis supervision

- A.Y. 2019/2020 Candidate: Lanz M. “The use of hydrothermal carbonization by-products in soilless culture systems”. Supervisor Prof. Tanja Mimmo, Co-supervisor: Dr. Silvia Celletti. Bachelor in Agricultural and Agro-Environmental Sciences, Faculty of Science and Technology - Free University of Bolzano - Bozen (Italy).
- A.Y. 2018/2019 Candidate: Bergamo A. “Hydrothermal Carbonization (HTC) of manure-based digestates: the use of by-products in soilless cultivation systems”. Supervisor Prof. Tanja Mimmo, Co-supervisors: Dr. Silvia Celletti, Prof. Stefano Cesco. Bachelor in Agricultural and Agro-Environmental Sciences, Faculty of Science and Technology - Free University of Bolzano - Bozen (Italy).

Alternanza Scuola - Lavoro

Tutoring of High School students

- Daniel Tais, 23/07 - 03/08/2018, 27/08 - 04/09/19 Realgymnasium “Peter Anich”, Bolzano – Bozen (Italy).

Further data

Presentations at scientific conferences (invited or selected speaker)

1. “The exploitation of the crosstalk between sulfur and iron to achieve micronutrient-rich crops” at the Ph.D. Winter School. **Celletti Silvia** (2019). “The role of agricultural chemistry to reconcile soil and environmental quality with food needs”, 11-14 February, Palermo, Italy.
2. Crosstalk between sulfur and iron nutrition”. **Celletti Silvia** (2018). Premiazione tesi di dottorato bando SICA 2018 at XXXVI Convegno Nazionale della Società Italiana di Chimica Agraria. Atti del convegno, Il ruolo della Chimica Agraria per la gestione sostenibile delle risorse agrarie e forestali, 24-26 September, Reggio Calabria, Italy.
3. “Effect of decreasing levels of Fe availability on S assimilation pathway in durum wheat (*Triticum durum* L.) seedlings”. **Celletti S**, Astolfi S (2015). Book of Abstracts, Società Italiana di Chimica Agraria, PhD Winter School, Feeding the world: the contribution of research in agricultural chemistry to sustainable development, 9-12 February, Piacenza, Italy, n. 33.
4. “Iron deprivation results in a rapid but not sustained increase of the expression of genes involved in iron metabolism and sulfate uptake in tomato (*Solanum lycopersicum* L.) seedlings”. **Celletti S**, Paolacci AR, Catarcione G, Hawkesford MJ, Astolfi S, Ciaffi M (2014). Book of Abstracts, Società Italiana di Chimica Agraria, PhD Winter School, Rhizosphere at work: soil-plant-microbes interactions, from plant nutrition to soil remediation, 17-20 February, Piacenza, Italy, n. 29.

Academic prizes and awards received

1. **Young Minds Awards for the third best poster** at “III International Symposium on growing media, composting and substrate analysis”, Milan, 24-28 June 2019. “The use of manure-based hydrothermal carbonization (HTC) byproducts in soilless cultivation systems”, **Silvia Celletti**, Alex Bergamo, Vittoria Benedetti, Matteo Pecchi, Daniele Basso, Marco Baratieri, Tanja Mimmo, Stefano Cesco <http://www.asso-substrati.it/news/>
2. **Premio Dottorato di Ricerca 2018 per la Tesi di Dottorato** at “XXXVI Convegno Nazionale della Società Italiana di Chimica Agraria - Il ruolo della Chimica Agraria per la gestione sostenibile delle risorse agrarie e forestali, Reggio Calabria, 24-26 September 2018. “Crosstalk between sulfur and iron nutrition” **Silvia Celletti** <http://www.chimicagraria.it/premi.php>
3. **Premio “Bonus quota di iscrizione”** at “XXXIV Convegno Nazionale della Società Italiana di Chimica Agraria - AMBIENTE E SOSTENIBILITA’: il ruolo della chimica agraria dalla ricerca alla

produttività, Perugia, 5-7 October 2016” “The characterization of durum wheat adaptive responses to different Fe availability highlights an optimum Fe requirement threshold”, **Silvia Celletti**, Youry Pii, Tanja Mimmo, Stefano Cesco, Stefania Astolfi.

Interviews received

1. Interview published on 25th March 2020 in AgroNotizie - Bioenergy section, entitled “Dal digestato substrati per la coltivazione fuori suolo, ora è possibile” <https://agronotizie.imaginenetwork.com/bio-energie-rinnovabili/2020/03/25/dal-digestato-substrati-per-la-coltivazione-fuori-suolo-ora-e-possibile/66306>

Exhibitions

1. Stand 4.20 (Hall 4) at Pordenone Fiere during Novel Farm 2020 (2nd edition) - Mostra-Convegno Internazionale sulle Nuove Tecniche di Coltivazione, Fuori Suolo e Vertical Farming, 19-20 February, Fiera di Pordenone, Pordenone (PN), Italy, with the following poster: Hydrothermal carbonization (HTC) of digestate and the potential of its by-products to be used in soilless culture systems of **Celletti S**, Bergamo A, Benedetti V, Pecchi M, Basso D, Baratieri M, Mimmo T, Cesco S (2020) http://www.novelfarmexpo.it/wp-content/uploads/2018/04/catalogo_AQF2020_web.pdf

Chairperson activities

1. Session V (26/09/2019): Frontiers in plant and soil sciences in the First Joint Meeting on Soil and Plant System Sciences (SPSS 2019), CIHEAM Bari, Italy, 23-26 September 2019 <https://spss2019.azuleon.org/programme.php>

Member of Research Societies

1. Società Italiana di Chimica Agraria (SICA) from May 2019.
2. International Society for Horticultural Science (ISHS) from February 2019.

Referee and editorial activities

Reviewer for

1. *Computational and Structural Biotechnology Journal* (Elsevier) (May 2020).
2. *Geoderma* (Elsevier) (February 2020).
3. *Plant Biosystems* (Taylor & Francis Group) (Certificate of recognition 2020).
4. *Plants* (MDPI journal) (October 2019).
5. *Agronomy* (MDPI journal) (March and April 2019).
6. *International Society for Horticultural Science* (ISHS) of the Proceedings of the VIII International Symposium on Mineral Nutrition of Fruit Crops of Acta Horticulturae Number 1217, Bolzano, 27-30 June 2017 (January 2018).
7. *Frontiers in Plant Science*, special section “Plant Nutrition” (14 November 2017).

Guest Editor for

1. *International Journal of Molecular Sciences* (IJMS) (MDPI journal), I.F. (2020): 4.556 (Special Issue: "Iron and Sulfur in Plants 2.0"), closed (30 November 2020).
https://www.mdpi.com/journal/ijms/special_issues/Iron_Sulfur_Plant_2
2. *Plants* (MDPI journal), I.F. (2019): 2.762 (Special Issue: "Selected Plant-Related Papers from the First Joint Meeting on Soil and Plant System Sciences (SPSS 2019)" “Natural and Human-induced Impacts on the Critical Zone and Food Production”, closed (31 May 2020)
https://www.mdpi.com/journal/plants/special_issues/spss_2019
3. *International Journal of Molecular Sciences* (IJMS) (MDPI journal), I.F. (2020): 4.556 (Special Issue: "Iron and Sulfur in Plants"), closed (31 March 2020)
https://www.mdpi.com/journal/ijms/special_issues/Iron_Sulfur_Plant

Research and scholarships

In the sector AGR/13, Dr. Silvia Celletti is partner of the following projects:

Date granted	Award Holder(s)	Funding Body	Title	Amount received
2018 - 2021	Prof. Stefano Cesco	EFRE-FESR 2014-2020	Hydrothermal carbonization of Biogas digestate for hydroPonics: an innovative concept of bio-refinery - HB Ponics	237.150 €

Collaborations

National collaborations

- **Prof. Stefania Astolfi**, Dipartimento di Scienze Agrarie e Forestali (DAFNE), Università degli Studi della Tuscia – Viterbo.
- **Prof. Gian Maria Beone**, Dipartimento di Scienze e tecnologie alimentari per una filiera agro-alimentare sostenibile (DiSTAS), Università Cattolica del Sacro Cuore - Milano – Sedi di Piacenza.
- **Prof. Mario Ciaffi**, Dipartimento per l'innovazione dei sistemi biologici, agroalimentari e forestali (DIBAF), Università degli Studi della Tuscia - Viterbo.
- **Prof. Valerio Cristofori**, Dipartimento di Scienze Agrarie e Forestali (DAFNE), Università degli Studi della Tuscia - Viterbo.
- **Prof. Daniele Del Buono**, Dipartimento Di Scienze Agrarie, Alimentari ed Ambientali, Università degli Studi di Perugia.
- **Prof. Domenico Lafiandra**, Dipartimento di Scienze Agrarie e Forestali (DAFNE), Università degli Studi della Tuscia - Viterbo.
- **Prof. Luigi Lucini**, Dipartimento di Scienze e Tecnologie Alimentari per una Filiera Agro-alimentare Sostenibile, Università Cattolica del Sacro Cuore - Milano - Sede di Piacenza.

- **Prof. Teodoro Miano**, Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti (Di.S.S.P.A.), Università degli Studi di Bari Aldo Moro.
- **Prof. Eddo Rugini**, Dipartimento di Scienze Agrarie e Forestali (DAFNE), Università degli Studi della Tuscia - Viterbo.
- **Dr. Michela Schiavon**, Department of Agronomy, Food, Natural resources, Animals and Environment (DAFNAE), Università degli Studi di Padova.
- **Prof. Roberto Terzano**, Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti (Di.S.S.P.A.), Università degli Studi di Bari Aldo Moro.
- **Prof. Zeno Varanini, Prof. Anita Zamboni and Prof. Sara Zenoni**, Dipartimento di Biotecnologie, Università degli Studi di Verona.
- **Dr. Gianpiero Vigani**, Dipartimento di Scienze della Vita e Biologia dei Sistemi, Università degli Studi di Torino.
- **Prof. Claudio Zaccone**, Dipartimento di Biotecnologie, Università degli Studi di Verona.

International collaborations

- **Prof. Alisdair R. Fernie and Prof. Rainer Höfgen**, Max-Planck-Institut für Molekulare Pflanzenphysiologie, Potsdam (Germany).
- **Prof. Malcom J. Hawkesford**, Rothamsted Research, West Common, Harpenden (UK).
- **Prof. Stanislav Kopriva**, Department of Metabolic Biology, John Innes Centre, Norwich Research Park, Norwich (UK).
- **Prof. Sonia Osorio**, Instituto de Hortofruticultura Subtropical y Mediterránea “La Mayora” - University of Malaga - Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), Department of Molecular Biology and Biochemistry, Málaga (Spain).

Publications

1. Zaccone C, Schiavon M, **Celletti S**, Miano T (2020) Selected Plant-Related Papers from the First Joint Meeting on Soil and Plant System Sciences (SPSS 2019)—“Natural and Human-Induced Impacts on the Critical Zone and Food Production”. *Plants* 9, 1132, pp. 1-7. DOI:10.3390/plants9091132. ISSN: 22237747. SJR (2019): Q1 (Plant Science); IF: 3.182.

2. **Celletti S***, Pii Y, Valentinuzzi F, Tiziani R, Fontanella MC, Beone GM, Mimmo T, Cesco S, Astolfi S (2020) Physiological Responses to Fe Deficiency in Split-Root Tomato Plants: Possible Roles of Auxin and Ethylene? *Agronomy* 10(7), 1000, pp. 1-14. DOI:10.3390/agronomy10071000. ISSN: 20734395. SJR (2019): Q1 (Agronomy and Crop Science); IF 2.858.
3. Astolfi S, Caddeu F, Coppa E, Pii Y, **Celletti S**, Cesco S, Mimmo T (2020) Preliminary evaluation of eggshells as a source of phosphate on hydroponically grown tomato (*Solanum lycopersicum* L.) seedlings. *Journal of Plant Nutrition* 43(12), pp. 1852-1861. DOI: 10.1080/01904167.2020.1750641. ISSN: 01904167. SJR (2019): Q2 (Agronomy and Crop Science); IF 1.225.
4. Astolfi S, Pii Y, Mimmo T, Lucini L, Miras-Moreno MB, Coppa E, Violino S, **Celletti S**, Cesco S (2020) Single and Combined Fe and S Deficiency Differentially Modulate Root Exudate Composition in Tomato: A Double Strategy for Fe Acquisition? *International Journal of Molecular Sciences* 21(11), 4038 pp. 1-20. DOI: 10.3390/ijms21114038. ISSN: 1661-6596. SJR (2019): Q2 (Molecular Biology); IF 4.602.
5. Coppa E, **Celletti S**, Pii Y, Mimmo T, Cesco S, Astolfi S (2018) Revisiting Fe/S interplay in tomato: A split-root approach to study the systemic and local responses. *Plant Science* 276, pp. 134-142. DOI: 10.1016/j.plantsci.2018.08.015. ISSN: 0168-9452. SJR (2018): Q1 (Plant Science); IF: 3.938.
6. Astolfi S, Pii Y, Terzano R, Mimmo T, **Celletti S**, Allegretta I, Lafiandra D, Cesco S (2018) Does Fe accumulation in durum wheat seeds benefit from improved whole-plant sulfur nutrition? *Journal of Cereal Science* 83, pp. 74-82. DOI: <https://doi.org/10.1016/j.jcs.2018.07.010>. ISSN: 0733-5210. SJR (2018): Q1 (Food Science); IF: 2.782.
7. Vigani G, Pii Y, **Celletti S**, Maver M, Mimmo T, Cesco S, Astolfi S (2018) Mitochondria dysfunctions under Fe and S deficiency: is citric acid involved in the regulation of adaptive responses? *Plant Physiology and Biochemistry* 126, pp. 86-96. DOI: 10.1016/j.plaphy.2018.02.022. ISSN: 0981-9428. SJR (2018): Q1 (Plant Science); IF: 4.038.
8. Zamboni A, **Celletti S**, Zenoni S, Astolfi S, Varanini Z (2017) Root physiological and transcriptional response to single and combined S and Fe deficiency in durum wheat. *Environmental and Experimental*

Botany 143, pp. 172-184. DOI: 10.1016/j.envexpbot.2017.09.002. ISSN: 0098-8472. SJR (2017): Q1 (Plant Science); IF 4.173.

9. Bartucca ML, **Celletti S**, Mimmo T, Cesco S, Astolfi S, Del Buono D (2017) Terbutylazine interferes with iron nutrition in maize (*Zea mays*) plants. *Acta Physiologiae Plantarum* 39(10), 235. DOI: 10.1007/s11738-017-2537-z. ISSN: 0137-5881. SJR (2017): Q2 (Plant Science); IF 1.708.
10. Silvestri C, **Celletti S**, Cristofori V, Astolfi S, Ruggiero B, Rugini E (2017) Olive (*Olea europaea* L.) plants transgenic for tobacco osmotin gene are less sensitive to in vitro-induced drought stress. *Acta Physiologiae Plantarum* 39(10), 229. DOI: 10.1007/s11738-017-2535-1. ISSN: 0137-5881. SJR (2017): Q2 (Plant Science); IF 1.708.
11. Bartucca ML, **Celletti S**, Astolfi S, Mimmo T, Cesco S, Panfili I, Del Buono D (2017) Effect of three safeners on sulfur assimilation and iron deficiency response in barley (*Hordeum vulgare*) plants. *Pest Management Science* 73(1), pp. 240-245. DOI: 10.1002/ps.4291. ISSN: 1526-4998. SJR (2017): Q1 (Agronomy and Crop Science); IF 3.310.
12. **Celletti S**, Pii Y, Mimmo T, Cesco S, Astolfi S (2016) The characterization of the adaptive responses of durum wheat to different Fe availability highlights an optimum Fe requirement threshold. *Plant Physiology and Biochemistry* 109, pp. 300-307. DOI: 10.1016/j.plaphy.2016.10.010. ISSN: 0981-9428. SJR (2016): Q1 (Plant Science); IF: 3.268.
13. **Celletti S**, Paolacci AR, Mimmo T, Pii Y, Cesco S, Ciaffi M, Astolfi S (2016) The effect of excess sulfate supply on iron accumulation in three graminaceous plants at the early vegetative phase. *Environmental and Experimental Botany* 128, pp. 31-38. DOI: 10.1016/j.envexpbot.2016.04.004. ISSN: 0098-8472. SJR (2016): Q1 (Plant Science); IF 5.137.
14. Zuchi S, Watanabe M, Hubberten HM, Bromke M, Osorio S, Fernie AR, **Celletti S**, Paolacci AR, Catarcione G, Ciaffi M, Hoefgen R, Astolfi S (2015) The Interplay between Sulfur and Iron Nutrition in Tomato. *Plant Physiology* 169(4), pp. 2624-2639. DOI: 10.1104/pp.15.00995. ISSN: 0032-0889. SJR (2015): Q1 (Plant Science); IF 7.003.
15. Del Buono D, Astolfi S, Mimmo T, Bartucca ML, **Celletti S**, Ciaffi M, Cesco S (2015) Effects of terbutylazine on phytosiderophores release in iron deficient barley. *Environmental and Experimental*

Botany 116, pp. 32-38. DOI: 10.1016/j.envexpbot.2015.03.00. ISSN: 0098-8472. SJR (2015): Q1 (Plant Science); IF 4.280.

16. Paolacci AR, **Celletti S**, Catarcione G, Hawkesford MJ, Astolfi S, Ciaffi M (2014) Iron deprivation results in a rapid but not sustained increase of the expression of genes involved in iron metabolism and sulfate uptake in tomato (*Solanum lycopersicum* L.) seedlings. Journal of Integrative Plant Biology 56(1), pp. 88-100. DOI: 10.1111/jipb.12110. ISSN: 1672-9072. SJR (2014): Q1 (Plant Science); IF 3.870.
17. Ciaffi M, Paolacci AR, **Celletti S**, Catarcione G, Kopriva S, Astolfi S (2013) Transcriptional and physiological changes in the S assimilation pathway due to single or combined S and Fe deprivation in durum wheat (*Triticum durum* L.) seedlings. Journal of Experimental Botany 64(6), pp. 1663-1675. DOI: 10.1093/jxb/ert027. ISSN: 0022-0957. SJR (2013): Q1 (Plant Science); IF 6.717.

* **Corresponding author.**

Abstracts (A), Oral Communications (OC), and Posters (P)

1. Pecchi M, Benedetti V, **Celletti S**, Basso D, Patuzzi F, Mimmo T, Cesco S, Baratieri M (2021) Semi-continuous analysis of liquid compounds during HTC of digestate. WasteEng 2020 (8th International Conference on Engineering for Waste and Biomass Valorisation), July 12-15, Guelph, Canada. (A)
2. Benedetti V, Pecchi M, **Celletti S**, Basso D, Patuzzi F, Mimmo T, Cesco S, Baratieri M (2021) Valorisation of digestate through hydrothermal carbonization (HTC): a preliminary characterization of derived gaseous, liquid, and solid products. Thessaloniki 2020 (8TH INTERNATIONAL CONFERENCE ON SUSTAINABLE SOLID WASTE MANAGEMENT), 23-26 June, Thessaloniki, Greece. (A)
3. Rascio I, Gattullo CE, Allegretta I, Porfido C, Spagnuolo M, Crecchio C, Khanghahi M, Sakellariadou F, Grisorio R, Suranna GP, Borruso L, Tiziani R, **Celletti S**, Mimmo T, Cesco S, Roberto Terzano (2021) An integrated approach to study the effect of fire on the mobilization and toxicity of chromium in an agricultural polluted soil. CLEAR2020 Conference (The 5th International Conference on Contaminated Land, Ecological Assessment and Remediation), June 9th-11th, Middlesex University, London, UK, n. 19. (A)
4. Benedetti V, Pecchi M, **Celletti S**, Basso D, Patuzzi F, Mimmo T, Cesco S, Baratieri M (2020) DIGESTATE VALORIZATION BY HYDROTHERMAL CARBONIZATION. VENICE 2020 - 8TH

INTERNATIONAL SYMPOSIUM ON ENERGY FROM BIOMASS
AND WASTE, VIRTUAL EVENT / 16-19 NOVEMBER 2020. (A)

5. **Celletti S**, Bergamo A, Benedetti V, Pecchi M, Basso D, Baratieri M, Mimmo T, Cesco S (2020) Hydrothermal carbonization (HTC) of digestate and the potential of its by-products to be used in soilless culture systems. Novel Farm 2020 (2^a edizione) - Mostra-Convegno Internazionale sulle Nuove Tecniche di Coltivazione, Fuori Suolo e Vertical Farming, 19-20 Febbraio, Fiera di Pordenone, Pordenone (PN), Italy. (P)
6. Pecchi M, Benedetti V, **Celletti S**, Basso D, Patuzzi F, Mimmo T, Cesco S, Baratieri M (2020) Hydrothermal carbonization of digestate: semi-continuous analysis of liquid compounds. EUBCE 2020 (28th European Biomass Conference & Exhibition) Bioeconomy's role in the post-pandemic economic recovery, Virtual, 6-9 July, 3BV.3.35. (A)
7. **Celletti S**, Bergamo A, Benedetti V, Pecchi M, Basso D, Baratieri M, Mimmo T, Cesco S (2019) Hydrothermal carbonization (HTC) of digestate and the potential of its by-products to be used in soilless culture systems. Programme and Abstracts, First Joint Meeting on Soil and Plant System Sciences (SPSS 2019), 23-26 September, CIHEAM Bari, Italy, n. 80. (A) (P)
8. **Celletti S**, Bergamo A, Benedetti V, Pecchi M, Basso D, Baratieri M, Mimmo T, Cesco S (2019) The use of manure-based hydrothermal carbonization (HTC) byproducts in soilless cultivation systems. Program and Abstracts, III International Symposium on growing media, composting and substrate analysis, 24-28 June, Milan, Italy, n. 79-80. (A) (P)
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Statement of interest

Current research interests of Dr. Silvia Celletti are mainly focused on: (i) characterizing the physical-chemical properties of manure-based digestate derived from anaerobic digestion plants, used as feedstock for the hydrothermal carbonization (HTC) process; (ii) on characterizing the physical-chemical properties of the two products of the HTC process: the solid (hydrochar) and liquid fraction. In particular, she is analyzing the pH and electrical conductivity; the composition of carbon and nitrogen through the TOC analyzer; the content of macro-, micronutrients and metals heavy with ICP-OES technology after acid microwave digestion; content of phytotoxic substances (polycyclic aromatic hydrocarbons, furan compounds), sugars and organic acids by HPLC analysis. In addition, she is performing plant growth tests, using maize and tomato, on both HTC products in view of their use (the liquid as fertigation solution and the solid as medium growing) in soilless culture systems for crop production in the biomass and green economy field.

Furthermore, Dr. Silvia Celletti was involved in studying plant physiological responses to deficiencies of mineral elements and the plant mechanisms of nutrient uptake, assimilation, transport and allocation. In particular, the study of the complex interplay between sulfur (S) and iron (Fe) in monocot (e.g., durum wheat, barley and maize) and dicot (e.g., tomato) crops, in which the deficiency of one of the two nutrients induces physiological modifications, triggering an adequate and balanced assimilation of the other one, is one of the central topics in the research activity of Dr. Silvia Celletti. Therefore, she applied a multidisciplinary and interdisciplinary methodological approach, that integrated molecular, biochemical, physiological and quantitative analysis, and required the combined application of a vast variety of tools and technologies, such as qRT-PCR in order to characterize gene expression profiles, metabolomic (GC-TOF/MS, LC-MS), and ionomic (ICP-OES) for multidisciplinary and holistic studies on nutrient use efficiency (NUE). Bioinformatic analysis is also a very important component of the work. All these technologies are aimed at providing a comprehensive understanding on Fe and S nutrition and how these two essential nutrients are associated within the plant and they may impact the uptake, transport and storage of another element, with the aim to understand how the different sensing and signaling pathways, activated in response to changes in availability of a single element, are coordinately integrated with those of other elements and to develop novel strategies to improve the plant nutritional status.

In details, the research activity of Dr. Silvia Celletti has been focused on three key questions for this research area: 1) New functions for S in improving plant efficiency to uptake, transport or accumulate Fe; 2) New mechanisms underlying Fe homeostasis and how these are impacted by S; 3) Crop management strategies that minimize Fe deficiency without additional input of Fe fertilizers.

Dr. Silvia Celletti is author of 17 SCOPUS [16 listed and 1 (Zaccone et al., 2020) updating] **scientific papers and 42 national and international congress contributions (SCOPUS: H-Index 8; Number of Citations: 188 – updated to 14/09/2020).**

**Language
competence**

Italian: First Language;

English: B2 level;

German: A2 level.

Driving license

B Class

The undersigned, Silvia Celletti, C.F. CLLSLV85C50H501O, born in Rome (RM), on March 10th, 1985, gives her consent to her personal data being processed, within the limits of the legislative decree 196/2003, for formalities connected with the present procedure.

Data

14/09/2020

Luogo

Bolzano