

University Academic Curriculum Vitae

Personal information

Name: **Youry Pii**
 Place and –date of birth: **Massa Marittima (GR), 17/02/78**
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Education since leaving school

- **2004** Master Degree in Biotechnology, mark 110/110 *cum Laude*, University of Bologna.
- **2009** Ph.D in Applied Biotechnology, Agro-Industrial curriculum; University of Verona.
- **2013-2019** Researcher on fixed-term (Assistant Professor) in the Scientific Disciplinary Sector - SSD AGR/13, Faculty of Science and technology, Free University of Bozano
- **2017** Habilitation as Associate Professor for the sector 07/E1 - Chimica Agraria, Genetica Agraria e Pedologia

Present appointment

- Senior researcher on fixed-term (Assistant Professor), SSD AGR/13, since 01/06/17, Faculty of Science and Technology, Free University of Bolzano.
- Member of the PhD Program "Food Engineering and Biotechnology" (DOT17C3077). Faculty of Science and Technology, Free University of Bolzano, Italy;
- Responsible of the Analytical Chemistry laboratory (E012) of the Faculty of Science and Technology at the Free University of Bolzano (since 2018);
- Reference professor (Docente di riferimento) for the master LM-70 "Food Sciences for Innovation and Authenticity";
- Supervisor and co-supervisor of Bachelor (L-25), Master (LM-69) and PhD (DOT10C3958 and DOT17C3077) students for their thesis, Faculty of Science and Technology, Free University of Bolzano, Italy;

Professional experience

In Italy

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
Apr 2004 – Dec 2005	Research fellow	University of Verona	Master Degree	Research activity in Plant Physiology and Agricultural Chemistry
Jan 2006 – Dec 2008	PhD Student	University of Verona	Master Degree	Research activity in Plant Physiology and Agricultural Chemistry
Mar 2009- Dec 2010	Research Fellow	University of Verona	Post-Doc	Research activity in Plant Physiology and Agricultural Chemistry
Feb 2011	Research	University of Verona	Post-Doc	Research activity in Agricultural

- May 2013	Fellow			Chemistry
May 2013- May 2016	RTD <i>junior</i>	Free University of Bolzano	Post-Doc	Research activity in Agricultural Chemistry
May 2016- May 2017	RTD <i>junior</i>	Free University of Bolzano	Post-Doc	Research activity in Agricultural Chemistry, supervisor of bachelor, master and PhD students.
Since June 2017	RTD <i>senior</i>	Free University of Bolzano	Post-Doc	Research activity in Agricultural Chemistry, supervisor of bachelor, master and PhD students.

Abroad

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
May 2006	Visiting Scientist (Fellowship Royal Society of Edinburgh – Accademia Italiana dei Lincei)	James Hutton Institute, Division of Plant Science, Dundee, UK	Post-Doc	Research activity in Agricultural Chemistry
Jun 2008	Visiting PhD Student	Technische Universität München, Wissenschaftszentrum Weihenstephan für Ernährung, Landnutzung und Umwelt Complementation (BiFC).	Master Degree	Research activity in Plant Physiology and Agricultural Chemistry

Experience in academic teaching

Youry Pii is carrying out didactic activities related to the field of Agricultural Chemistry (SSD AGR/13) since the academic year 2014/2015. He has been teaching in English within Bachelor, Master and PhD Programs, both in Italy and abroad. In detail:

Academic Year 2019/20

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. *Students' evaluation not yet available.*

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. *Students' evaluation not yet available.*

Course of "**Environmental chemistry towards food processing**" (8 CFU), Master in Food Sciences for Innovation and Authenticity, Free University of Bolzano within the Inter-Universities Consortium UniBZ-UniUD-UniPR. Teaching language: English. *Students' evaluation not yet available.*

Academic Year 2018/19

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. *Are you generally satisfied with the way this course was taught? 89% Generally Yes + Yes*

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. *Are you generally satisfied with the way this course was taught? 100% Generally Yes + Yes*

Course of "**Environmental chemistry towards food processing**" (8 CFU), Master in Food Sciences for Innovation and Authenticity, Free University of Bolzano within the Inter-Universities Consortium UniBZ-UniUD-UniPR. Teaching language: English. *Are you generally satisfied with the way this course was taught? 100% Generally Yes + Yes*

Academic Year 2017/18

Course of "**Biochemistry and physiology of agricultural plants - Exercise**" (3 CFU) – Bachelor in Agricultural, Food and Mountain Environmental Sciences, Free University of Bolzano. Teaching language: English. *Course held in co-presence with Prof. Stefano Cesco (responsible of the course): course evaluation not foreseen.*

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. *For this course, less than five questionnaires have been completed.*

Academic Year 2016/17

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. *Are you generally satisfied with the way this course was taught? 87,5% Generally Yes + Yes*

Course of "**Bodenchemie und –fruchtbarkeit - Übungen**", (3 CFU) – Bachelor in Agricultural, Food and Mountain Environmental Sciences, Free University of Bolzano. Teaching language: German. *Course held in co-presence with Dr. Bruno Plasinger (responsible of the course): course evaluation not foreseen.*

Academic Year 2015/16

Teaching assistant for the course of "**Biochemistry and physiology of agricultural plants**" - Bachelor in Agricultural and Agro-Environmental Sciences, Free University of Bolzano (SSD AGR/13) (6 Credits). *Course held in co-presence with Prof. Stefano Cesco (responsible of the course): course evaluation not foreseen.*

Academic Year 2014/15

Teaching assistant for the course of "**Biochemistry and physiology of agricultural plants**" - Bachelor in Agricultural and Agro-Environmental Sciences, Free University of Bolzano (SSD AGR/13) (6 Credits). *Course held in co-presence with Prof. Stefano Cesco (responsible of the course): course evaluation not foreseen.*

Academic Year 2010/11

Course of "**Plant Biology and Plant Physiology**", Bachelor in Viticultural and

Oenological Science and Technology, University of Verona (SSD BIO/01; BIO/04) (6 Credits).

Academic Year 2009/10

Course of "**Plant Biology and Plant Physiology**", Bachelor in Viticultural and Oenological Science and Technology, University of Verona (SSD BIO/01; BIO/04) (6 Credits).

Academic Year 2008/09

Teaching assistant for the course of "**Cell Biology and Plant Biology**", Bachelor in Biotechnology, University of Verona.

Teaching assistant for the course of "**Biomolecular Technologies**", Bachelor in Biotechnology, University of Verona.

Academic Year 2008/09

Teaching assistant for the course of "**Biomolecular Technologies**", Bachelor in Biotechnology, University of Verona.

Didactic Activity at international PhD Schools

- AY 2016/17 Seminar entitled "Rhizosphere - The Middle-Earth of Plant-Soil-Microbes interaction" within the SICA PhD Winter School, 13-16 February 2017, Piacenza (Italy). Teaching language: English. http://www.chimicagraria.it/files/congressi/170209_3rdCircularWinterSchool_SICA_2017.pdf
- AY 2015/16 Seminar entitled "Influence of the nutritional status and substrate characteristics on the shoot ionome to predict the synergism and antagonism between nutrients in crops." within the SICA PhD Winter School, 15-18 February 2016, Piacenza (Italy). Teaching language: English. http://www.chimicagraria.it/files/congressi/160210_3rdCircularWinterSchool_sica_2016.pdf
- AY 2014/15 Seminar entitled "An underground tale: contribution of microbial activity to plant nutrients acquisition." within the International SICA PhD Winter School, 9-12 February 2015, Piacenza (Italy). Teaching language: English. http://www.chimicagraria.it/files/congressi/150128_Program_SICA_Winter_School_2015.pdf
- AY 2013/14 Seminar entitled "Interactions between plants and microorganisms: towards a better nutrients use efficiency?" within the International SICA PhD Winter School, 17-20 February 2014, Piacenza (Italy). Teaching language: English. <http://www.chimicagraria.it/files/congressi/Program-Winter-School-SICA-2014.pdf>

Didactic Activity at in foreign research Institution

- May 2016 Seminar entitled "The interactions between plant, microorganisms and soil affect iron acquisition in cucumber" within the PhD Program of The James Hutton Institute, Dundee (UK).

Bachelor and Master Thesis Supervision

- AY 2018/19 Candidate: Rodegher G. "Characterization of hydroxyapatite nanoparticles uptake mechanisms and their effects on the aromatic profile of Pinot

gris berries." Supervisor Dr. Youry Pii, Co-supervisors: Prof. Stefano Cesco, Dr. Edoardo Longo, Prof. Emanuele Boselli. Master in Viticoltura, Enologia e Mercati Vitivinicoli, University of Udine.

- AY 2018/19 Candidate: Tolotti A. "Determination of mineral elements distribution profile in *Vitis vinifera* leaves infected with *Plasmopara viticola*". Supervisor Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

- AY 2018/19 Candidate: Ioriatti E. "Effect of digestates on root morphology and plant nutrient uptake in maize and cucumber". Supervisor Prof. Tanja Mimmo, Co-supervisors: Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

- AY 2018/19 Candidate: Signorini M. "Influence of copper pollution on soil microbial diversity in a vineyard.". Supervisor Dr. Youry Pii, Co-supervisors: Prof. Stefano Cesco. Master in Viticoltura, Enologia e Mercati Vitivinicoli, University of Udine.

- AY 2018/19 Candidate: Bucci F. "Interaction between *Cucumis sativus* and *Azospirillum brasilense* in the iron acquisition process: a molecular perspective.". Supervisor Dr. Youry Pii Co-supervisors: Prof. Luciano Cavani. Master in International Horticultural Science, University of Bologna.

- AY 2018/19 Candidate: Castellani D. "Microalgae: a promising plant growth Biostimulant". Supervisor Prof. Ornella Francioso Co-supervisors: Dr. Youry Pii. Master in International Horticultural Science, University of Bologna.

- AY 2018/19 Candidate: Zanasi G. "Detection of deethylhydroxyatrazine (DEHA) by surface-enhanced Raman spectroscopy (SERS) and its interaction with humicacids (HA)". Supervisor Prof. Ornella Francioso Co-supervisors: Dr. Youry Pii. Master in International Horticultural Science, University of Bologna.

- AY 2017/18 Candidate: Kolega S. "Aromatic profiles of two hydroponically-grown sweet basil (*O. basilicum* L.) cultivars as affected by the composition of nutrient solution and the inoculation with Plant Growth-Promoting Rhizobacteria". Supervisor Dr. Youry Pii Co-supervisors: Dr. Luciano Cavani, Prof. Stefano Cesco. Master in International Horticultural Science, University of Bologna.

- AY 2017/18 Candidate: Baldo D. "Evaluating the efficacy of a biological formulate against Flavescence dorée phytoplasma". Supervisor Dr. Claudio Ratti Co-supervisors: Dr. Youry Pii e Dr. Matteo Colassanzio. Master in International Horticultural Science, University of Bologna.

- AY 2017/18 Candidate: Cappelletti E. "*Fusarium proliferatum*: phylogenetic and pathogenic strains analysis of a widespread species". Supervisor Dr. Claudio Ratti Co-supervisors: Dr. Youry Pii e Dr. Maria Teresa Senatore. Master in International Horticultural Science, University of Bologna.

- AY 2017/18 Candidate: Pedrazzi M. "Can spent coffee grounds be used as agricultural fertilizers? A brief study over their characterization and biostimulant activity". Supervisor Prof. Ornella Francioso Co-supervisors: Dr. Youry Pii e Dr. Michele di Foggia. Master in International Horticulture Science, University of Bologna.

- AY 2017/18 Candidate: Tiziani R. "Effect of glyphosate weeding and urea fertilization on Gewürtztraminer berry development". Supervisor Prof. Zeno Varanini. Co-supervisors: Dr. Anita Zamboni, Dr. Youry Pii. Master in Biotechnology, University of Verona.

- AY 2016/17 Candidate: Beber K. "The fate of Terbutylazine (TBA) in soil: adsorption and degradation". Supervisor Prof. Tanja Mimmo. Co-supervisors: Prof. Stefano Cesco, Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

- AY 2016/17 Candidate: Graf H. "Wirkung von nützlichen Mikroorganismen auf das Wachstum und die Qualität von Erdbeeren". Supervisor: Prof. Tanja Mimmo. Co-supervisors: Prof. Stefano Cesco, Dr. Youry Pii. Bachelor in Agricultural Science And

Agricultural Technology, Mountain Farming. Free University of Bolzano.

DOI: 10.17660/ActaHortic.2018.1217.29

- AY 2015/16 Candidate: Aldrighetti A. "Effects of *Azospirillum brasilense* on nitrate uptake in Maize (*Zea Mays* L.) seedlings". Supervisor: Prof. Stefano Cesco. Co-supervisor: Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

DOI: 10.1093/jxb/ery433

- AY 2013/14 Candidate: Hartmann F. "RNA-Seq approach to study iron and phosphorous deficiency in *Malus x domestica*". Supervisors Dr. Tanja Mimmo and Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

- AA 2013/14 Candidate: Springeth C. "Biochemical activities in cucumber plants as affected by *Azospirillum brasilense* inoculation: a spatial-temporal resolution". Supervisors Dr. Tanja Mimmo and Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

DOI: 10.1016/j.envexpbot.2016.06.011

- AA 2013/14 Candidate: Penn A. "Plant - soil - microorganisms interactions under Fe-deficiency using a soil based Rhizotest system". Supervisors Dr. Tanja Mimmo and Dr. Youry Pii. Bachelor in Agricultural Science And Agricultural Technology, Mountain Farming. Free University of Bolzano.

DOI: 10.1016/j.plaphy.2014.12.014

- AA 2011/12 Candidate: Castagnini G. "Aspetti fenotipici e fisiologici della Mg-carenza in piante di *Vitis vinifera* (cv Corvina) innestate su portinnesti a diversa suscettibilità". Supervisor Prof. Zeno Varanini, Co-supervisor Dr. Youry Pii. Bachelor in Viticultural and Oenological Science and Technology, University of Verona.

- AY 2010/11 Candidate: Franchi A. "Modificazioni fenotipiche e biochimiche indotte dalla carenza di Magnesio in *Vitis vinifera* cv. Corvina innestata su portinnesti a diversa suscettibilità al Magnesio". Supervisor Prof. Zeno Varanini, Co-supervisor Dr. Youry Pii. Bachelor in Viticultural and Oenological Science and Technology, University of Verona.

- AA 2010/11 Candidate: Malvezzi C. "Studio dell'espressione del gene *N5* di *Medicago truncatula* nel processo di nodulazione ed in risposta a molecole segnale coinvolte nella simbiosi". Supervisor: Dr. Tiziana Pandolfini, Co-supervisor Dr. Youry Pii. Bachelor in Biotechnology, University of Verona.

- AA 2010/11 Candidate: Bertolini J. "Coinvolgimento di *MtN5* nella trasduzione del segnale nella simbiosi *S. meliloti* - *M. truncatula*". Supervisor Dr. Tiziana Pandolfini, Co-supervisor Dr. Youry Pii. Bachelor in Biotechnology, University of Verona..

- AA 2006/07 Candidate: Tomizioli M. "Produzione di ossido nitrico nei batteri ad opera di NO sintasi". Supervisor Dr. Tiziana Pandolfini, Co-supervisor Dr. Youry Pii. Bachelor in Biotechnology, University of Verona.

- AA 2004/05 Candidate: Cremonese G. "Effetti dell'aumento di auxina prodotta nel nodulo radicale su piante leguminose". Supervisor Prof. Massimo Crimi, Co-supervisor Dr. Youry Pii. Master degree in Biotechnology, University of Verona.

PhD Thesis Supervision and Co-supervision

- Supervisor of Sebastian Benedikt Feil, "Plant nutrients interaction within the Plant-Soil- Microorganism System", PhD in Food Engineering and Biotechnology, 34° cycle, Free University of Bolzano.

- Co-supervisor of Monica Yorlady Alzate Zuluaga, Universidade Estadual de Londrina, Londrina, Brazil. (AY 2018/19)

- Co-supervisor of Laura Marastoni, "Rhizosphere mechanisms alleviating copper toxicity in vineyard soils", PhD in Management of Mountain Environment, 31° cycle, Free University of Bolzano.

DOI: 10.1016/j.ecoenv.2019.109430

DOI: 10.3389/fpls.2019.00946

DOI: 10.1016/j.plaphy.2019.01.013

DOI: 10.1016/j.eti.2018.11.001

DOI: 10.1016/j.chemosphere.2018.09.127

DOI: 10.1016/j.envexpbot.2016.06.011

- Co-supervisor of Lessandro De Conti, Universidade Federal de Santa Maria, Santa Maria, Brazil. (AY 2017/18).

DOI: 10.1016/j.chemosphere.2019.125298

Alternanza Scuola-Lavoro

Tutoring of High-School students

- Daniel Tais, 23.07-03.08.2018, 27.08 – 04.09.13 Realgymnasium Peter Anich, Bolzano

Other activities related to didactic

AY 2017/18 Laboratorio "Projektwoche Rendezvous mit dem Traumberuf": Soil chemistry and biochemistry lab for High School Students.

AY 2018/19 Laboratorio "Projektwoche Rendezvous mit dem Traumberuf": Soil chemistry and biochemistry lab for High School Students.

AY 2017/18 Responsible for the internship of High School students within the "Alternanza Scuola Lavoro" project.

2016: member of the commission for the selection of a contract Professor for the course Bodenchemie und-fruchtbarkeit, within the bachelor in Agricultural Science and Agricultural Technology, Mountain Farming, Free University of Bolzano (L-25).

2016: member of the commission for the selection of a contract Professor for the course Soil Quality Environmental, within the master in Management of Mountain Areas, Free University of Bolzano (LM-69).

11 December 2019: Member of the commission for the final exam for the Master in Viticulture, Enology and Wine Marketing (LM-69).

02 October 2019: Member of the commission for the final exam for the Master in Viticulture, Enology and Wine Marketing (LM-69).

27 June 2018: Member of the commission for the final exam in the International Master in Horticultural Science (LM-69).

15 February 2018: Member of the commission for the final exam in the International Master in Horticultural Science (LM-69).

2016: Member of the commission for the final exam in Agricultural Science and Agricultural Technology, Mountain Farming, Free University of Bolzano (L-25) – Rector's Decree 44/2016.

Since AY 2018/19: Reference professor (*docente di riferimento*) for the LM-70. "Food Sciences for Innovation and Authenticity".

2017: Tutor for the internship of Raphael Tiziani (University of Verona): "Acquisizione di metodiche analitiche per la determinazione qualitativa e quantitativa dei principali composti organici contenuti nelle bacche di vite."

Innovative didactic methods

The didactic material used for the lectures and supplementary materials inherent to the topics treated are made available on the on line repository "Reserve collection" at the Free University of Bolzano.

Other academic responsibilities At the Free University of Bolzano

- Responsible of the Analytical Chemistry Lab (since 2018);
- Member of the PhD Program "Food Engineering and Biotechnology" (DOT17C3077). Faculty of Science and Technology, Free University of Bolzano, Italy;
- Reference professor (Docente di riferimento) for the master LM-70 "Food Sciences for Innovation and Authenticity";
- 2015 - 2017 Representative for the Faculty of Science and Technology, Free University of Bolzano, within the PRIMA project
- Member of the following commissions at the Faculty of Science and Technology:
 - Selection of a Research Assistant (AR) for the sector AGR/13 "Hydrothermal carbonization of biogas digestate for hydroponics: an innovative concept of bio-refinery - HB Ponics" – Recotr's Decree 36/2019.
 - Selection of a Research Assistant (AR) for the sector AGR/13 "Optimised nutrients management from livestock production in Alto Adige (Life OPTIMAL)" - Recotr's Decree 366/2018.
 - Selection of a Research Assistant (AR) for the sector AGR/13 "Sustainable grapevine nutrition strategies to enhance soil biodiversity and grapevine production (GRASP)" - Recotr's Decree 461/2017.
 - Selection of a Research Assistant (AR) for the sector AGR/13 "Optimised nutrients management from livestock production in Alto Adige (Life OPTIMAL)" - Recotr's Decree 33/2017.

Organization of events

Member of the scientific and organizing committee of the SICA International PhD Winter School "Plant-soil-microbe interactions and ecosystem dynamics in a changing environment" Torino, Italia, 10-13 February 2020. <https://www.acws.unito.it/home>

Member of the scientific and organizing committee of the SICA International PhD Winter School "The role of agricultural chemistry to reconcile soil and environmental quality with food needs" Palermo, Italia, 11-14 February 2019. http://www.chimicagraria.it/files/congressi/181126_2ndCircular_SICAPHDWINTERSC_HOOL2019.pdf

Member of the scientific and organizing committee of 11th World Congress on Plant Biotechnology and Agriculture, Paris (France), 05-07 March 2018. <https://agriculture-horticulture.conferenceseries.com/europe/organizing-committee.php>

Member of the scientific and organizing committee of SICA International PhD Winter School "The role of Agricultural Chemistry for a sustainable agricultural production and its traceability", Palermo, Italy, 12-15 February 2018. http://www.chimicagraria.it/files/congressi/171113_2ndCircular_SICA_PHDWINTERSC_HOOL_2018.pdf

Member of the scientific and organizing committee of "FUTURE IPM IN EUROPE: The largest international event on sustainable crop production and protection", Riva del Garda, Italy 15-20 October 2017. <http://futureipm3.eu/>

Member of the scientific and organizing committee of VIII International Symposium on Mineral Nutrition of Fruit Crops, Bolzano, 27-30 June 2017.

<http://mnutrition2017.events.unibz.it/committees/>

Member of the scientific and organizing committee of SICA International PhD Winter School "Current challenges in agricultural ecosystems: the need for a multidisciplinary approach", Piacenza, Italy, 13-16 February 2017.
http://www.chimicagraria.it/files/congressi/170209_3rdCircularWinterSchool_SICA2017.pdf

Member of the scientific committee of SICA International PhD Winter School "Novel approaches to unravel the plant-soil-microbial systems in action" held in Piacenza, Italy, 15-18 February 2016.
http://www.chimicagraria.it/files/congressi/160210_3rdCircularWinterSchool_sica2016.pdf

Member of the scientific and organizing committee of European Society of New Methods in Agricultural Research (ESNA) Conference, Bolzano, 3-6 September 2014.
<http://pro.unibz.it/microsites-export-2016/www.unibz.it/en/sciencetechnology/events/esna2014/committees/default.html>

Member of the scientific and organizing committee of XXXII Congress of Società Italiana di Chimica Agraria (SICA), Bolzano, 7-9 September 2014.
http://pro.unibz.it/microsites-export-2016/www.unibz.it/it/sciencetechnology/events/sica/Documents/SICA_2014_Seconda_circolare%20FINAL.pdf

Third mission

- 15 November 2019: Participation as invited speaker to the technical day "Novel Farm Expo" at Fiera di Pordenone. <http://www.novelfarmexpo.it/programma-2020/>
- 19-20 February 2020: Participation as invited speaker to the technical day "Hypathia – Nuove tecnologie per un'agricoltura sostenibile" at University of Insubria, Como. <https://www.hypatiagro.it/it/hypatia-final-meeting/>
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- Commissioned research activity (Project FERTFRUIT) and consultations for Cooperativa Sant'Orsola, Pergine Valsugana (TN)
- AY 2017/18 Laboratorio "Projektwoche Rendezvous mit dem Traumberuf": Soil chemistry and biochemistry lab for High School Students.
- AY 2018/19 Laboratorio "Projektwoche Rendezvous mit dem Traumberuf": Soil chemistry and biochemistry lab for High School Students.
- AY 2019/20 Laboratorio "Projektwoche Rendezvous mit dem Traumberuf": Soil chemistry and biochemistry lab for High School Students.
- AY 2017/18 Internship responsible for High School Students, within the "Alternanza Scuola Lavoro" program.

Memberships

Member of:

Società Italiana di Chimica Agraria (SICA)
Società Italiana di Biologia Vegetale (SIBV)
European Society of New Methods in Agricultural Research (ESNA)
International Society of Trace Element Biogeochemistry (ISTEB)
International Society of Horticultural Sciences (ISHS)

Editorial and referee activities

- Component of Editorial Board of:
 - *Access Journal of Biotechnology Research*;

- *Journal of Botanical Sciences*;
- *Frontiers in Plant Science*;
- *Plant Nutrition & Soil Science International*;
- *MDPI Agriculture* (<https://www.mdpi.com/journal/agriculture/editors>).
- Guest Editor for:
 - *Acta Horticulturae* (Special Issue VIII International Symposium on Mineral Nutrition of Fruit Crops);
 - *MDPI Agriculture* (Special Issue: Rhizosphere Research http://www.mdpi.com/journal/agriculture/special_issues/Rhizosphere_Agriculture).
- Reviewer for the following scientific journals: BMC Research Note; African Journal of Agricultural Research; Biologia; Catena; Molecules; Frontiers in Plant Science; Journal of Science, Food and Agriculture; International Journal of Tropical Biology and Conservation; Journal of Plant Physiology; Journal of Medicinal Plant Research; Journal of the Science of Food and Agriculture; Canadian Journal of Microbiology; Clean – Soil, Air, Water; Arid Land Research and Management; Functional Plant Biology; Plant Signaling & Behavior; Plant Molecular Biology, PLoS One; Journal of Plant Nutrition and Soil Science, Journal of Botanical Science.
- Project reviewer for the Provincia Autonoma di Bolzano.
- Listed in the "Albo degli Esperti del CREA" (<https://www.crea.gov.it/altre-opportunit%C3%A0/albo-degli-esperti>).
- Listed in the REPRISE database (MIUR scientific experts' database) in the section "Ricerca di base".

Research and scholarships

In the sector AGR/13, Youry Pii is responsible of the following projects:

Date granted	Award Holder(s)	Funding Body	Title	Amount received
2019-2022	Dr. Youry Pii (Unit coordinator)	MIUR - PRIN	Use of Protein-Hydrolysates as biostimulants of vegetable crops: elucidating their mode of action and optimizing their effectiveness through a multidisciplinary approach - PHOBOS	130355 €
2016-2019	Dr. Youry Pii (PI)	Free University of Bolzano	Integration of ionomic and proteomic profiles of subcellular organelles to unravel mineral elements allocation and homeostasis in plants subjected to abiotic stresses (IMPRESS)	20000 €

In the sector AGR/13, Youry Pii is partner of the following projects:

Date granted	Award Holder(s)	Funding Body	Title	Amount received
2018-2021	Prof. Tammam Tillo	FESR 2014-2020	Hyperspectral images for inspection applications – H2I	201878,50
2019-2021	Prof. Stephan A. Schmidt-Wulffen, Prof. Stefano Cesco	Free University of Bolzano	Scientific visualisation: impact on practice - VIP	100000€

2018-2021	Prof. Stefano Cesco	FESR 2014-2020	Hydrothermal carbonization of Biogas digestate for hydroPonics: an innovative concept of bio-refinery - HB Ponics	237150€
2018-2021	Prof. Tanja Mimmo	Free University of Bolzano	Spatial and temporal nutrient dynamics in the rhizosphere to unravel nutrient mobilization and uptake processes in cultivated plants - NUMICS	97000 €
2017-2020	Prof. Tanja Mimmo	Free University of Bolzano	Rhizosphere processes affect copper bioavailability in vineyard soils - RHIZOPRO	70000 €
2017-2018	Prof. Stefano Cesco	Azienda Cooperativa Sant'Orsola, Pergine Valsugana - TN	Influence of fertigation solution composition of fruits quality - FERTFRUIT	7500 €
2016-2019	Prof. Stefano Cesco	Free University of Bolzano	Sustainable grapevine nutrition strategies to enhance soil biodiversity and grapevine production - GRASP	50000 €
2015-2017	Prof. Stefano Cesco	Free University of Bolzano	The role of nutrient availability on fruit quality parameters: molecular and chemical evaluation of strawberry fruits - BERRY	96000 €
2013-2019	Prof. Tanja Mimmo	LIFE12 ENV/IT/000671 (progetto EU)	Optimised nutrients management from livestock production in Alto Adige - LIFE-OPTIMAL2012	230000€
2013-2016	Prof. Tanja Mimmo	MIUR - FIRB	Rhizosphere management for sustainable crop production: processes and mechanisms involved in soil nutrient availability, plant uptake and translocation - RHIZOCROP	306344 €

Collaborations

National collaborations

- **Prof. Stefania Astolfi**, Dipartimento di Scienze Agrarie e Forestali, Università degli Studi della Tuscia.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=d9a11f489bbdec50386f146ef5309868&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Astolfi%2c+S.%236601945193%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zone=leftSideBar&editSaveSearch=&XGid=e1a42f2597a29e464df52e53f668e1c8>

DOI: 10.1016/j.plantsci.2018.08.015
DOI: 10.17660/ActaHortic.2018.1217.2
DOI: 10.1016/j.jcs.2018.07.010
DOI: 10.1016/j.plaphy.2018.02.022
DOI: 10.1016/j.plaphy.2016.10.010
DOI: 10.1016/j.chemosphere.2016.07.104
DOI: 10.1016/j.envexpbot.2016.04.004
DOI: 10.1111/jipb.12214

- **Prof. Gian Maria Beone**, Dipartimento di Scienze e Tecnologie Alimentari per una Filiera Agro-alimentare Sostenibile, Università Cattolica del Sacro Cuore Sede di Piacenza.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-84976588721&origin=AuthorNamesList&txGid=2824e0ce1d5b906dbaf1f9ab6f6d2b9c>

DOI: 10.1016/j.envexpbot.2016.06.011

- **Prof. Carmine Crecchio**, Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti, Università di Bari.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=5ed0f369ce5e17525478a0aebc1dd0de&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Crecchio%2c+C.%236602501972%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zone=leftSideBar&editSaveSearch=&txGid=275a35f9374af39eb736aa120a77e7e6>

DOI: 10.1016/j.plaphy.2015.12.002

DOI: 10.1016/j.plaphy.2016.06.002

DOI: 10.1007/s00374-015-0996-1

DOI: 10.1016/j.plaphy.2014.12.014

- **Prof. Luigi Lucini**, Dipartimento di Scienze e Tecnologie Alimentari per una Filiera Agro-alimentare Sostenibile, Università Cattolica del Sacro Cuore Sede di Piacenza.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85034051423&origin=AuthorNamesList&txGid=85cde0afb2ee19384200c8e3cb3f1d75>

DOI: 10.3389/fpls.2017.01887

- **Dr. Roberto Terzano**, Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti, Università di Bari.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=891a898e89260204042af13aea845a38&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Terzano%2c+R.%236507870960%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zone=leftSideBar&editSaveSearch=&txGid=54a332863609e3146dbe0c746350090c>

DOI: 10.17660/ActaHortic.2018.1217.2

DOI: 10.1016/j.jcs.2018.07.010

DOI: 10.1016/j.chemosphere.2016.07.104

DOI: 10.1002/jpln.201500535

DOI: 10.1007/s00374-015-0996-1

DOI: 10.1016/j.plaphy.2014.12.014

- **Prof. Nicola Tomasi**, Dipartimento di Scienze Agroalimentari, Ambientali e Animali, Università degli Studi di Udine.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=fab5313e4e2e50eaa460e4bb8d930770&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Terzano%2c+R.%236507870960%22%2ct%2c%22Tomasi%2c+N.%2357191246775%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zone=leftSideBar&editSaveSearch=&txGid=023abae614518aafbcc3d0691ae2ded>

DOI: 10.17660/ActaHortic.2018.1217.2

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DOI: 10.1016/j.chemosphere.2016.07.104
DOI: 10.1002/jpln.201500535
DOI: 10.1007/s00374-015-0996-1
DOI: 10.1016/j.plaphy.2014.12.014

- **Prof. Zeno Varanini e Prof. Anita Zamboni**, Dipartimento di Biotecnologie, Università degli Studi di Verona.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=f83abef44f45e792a3401e56e979caa7&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Varanini%2c+Z.%236701648087%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zzone=leftSideBar&editSaveSearch=&txGid=f262aea62afdeca22cd3bae445274ec>

DOI: 10.3389/fpls.2017.00640
DOI: 10.3389/fpls.2016.01657
DOI: 10.1071/FP13227
DOI: 10.1111/jipb.12214

- **Dr. Gianpiero Vigani**, Dipartimento di Scienze della Vita e Biologia dei Sistemi, Università di Torino.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=000d26c501f4fbb64832d3879a0e99b1&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Vigani%2c+G.%2325930649500%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zzone=leftSideBar&editSaveSearch=&txGid=1d4bb15f4c5524b8592e12459863b343>

DOI: 10.1016/j.plaphy.2018.02.022
DOI: 10.1093/jxb/erv364

International Collaborations

- **Prof. Gustavo Brunetto**, Universidade Federal de Santa Maria, Santa Maria, Brasile.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=3b637a4f639c22c0be423be88de1f5e1&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Brunetto%2c+G.%236508089504%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zzone=leftSideBar&editSaveSearch=&txGid=48fcb19587710cdc45d940d86e172272>

DOI: 10.1016/j.chemosphere.2018.09.127
DOI: 10.17660/ActaHortic.2018.1217.2
DOI: 10.1016/j.chemosphere.2016.07.104

- **Prof. Brett Robinson**, College of Science, University of Canterbury, New Zealand.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85057895888&origin=AuthorNamesList&txGid=c597d900917dadfd53e2c8b1f1898f2a>

DOI: 10.17660/ActaHortic.2018.1217.2

- **Prof. Niklas Letho**, Agriculture and Life Sciences, Lincoln University, New Zealand.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85057895888&origin=AuthorNamesList&txGid=a5518c6ac2fee4f5461e28acd7c249b3>

DOI: 10.17660/ActaHortic.2018.1217.2

Interdisciplinary collaborations (national and international)

- **Dr. Davide Bulgarelli**, Division of Plant Sciences, College of Life Sciences, University of Dundee.

<https://www.scopus.com/record/display.uri?eid=2-s2.0->

[84963799104&origin=AuthorNamesList&txGid=7fe037c67abf9432009c80adb69eac21](https://www.scopus.com/record/display.uri?eid=2-s2.0-84963799104&origin=AuthorNamesList&txGid=7fe037c67abf9432009c80adb69eac21)
DOI: 10.1016/bs.aambs.2016.03.001

- **Prof. Fabrizio Mazzetto**, Facoltà di Scienze e Tecnologie, Libera Università di Bolzano.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85057520801&origin=AuthorNamesList&txGid=c7dfe42ebaaaaab79ef554ff9276d678>
DOI: 10.1016/j.eti.2018.11.001

- **Gruppo Prof. Tiziana Pandolfini e Dr. Barbara Molesini**, Dipartimento di Biotecnologie, Università degli Studi di Verona.

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=2868d466ad0fdc9470c35c6d12389115&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Pandolfini%2c+T.%236603297588%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zone=leftSideBar&editSaveSearch=&txGid=00ff8005f9a597587fa8d91b25f2990b>

DOI: 10.3390/genes8120396
DOI: 10.3389/fpls.2017.00640
DOI: 10.1021/pr4009942
DOI: 10.1186/1471-2229-12-233
DOI: 10.1371/journal.pone.0041327
DOI: 10.1016/j.tibtech.2011.07.005
DOI: 10.4161/psb.11499
DOI: 10.1094/MPMI-22-12-1577
DOI: 10.1186/1471-2229-7-21

- **Prof. Paolo Sambo**, Dipartimento di Agronomia Animali Alimenti Risorse Naturali e Ambiente, Università degli Studi di Padova.

<https://www.scopus.com/record/display.uri?eid=2-s2.0-85034051423&origin=AuthorNamesList&txGid=f3297f6183fa5793f8c9ba428d9321c0>
DOI: 10.3389/fpls.2017.01887

- **Dr. Gianluca Savini**, Cooperativa Sant'Orsola, Pergine Valsugana (TN).

<https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=pii&st2=y&nlo=1&nlr=20&nls=count-f&sid=efafee5bae597cee5367b156d7fdae02&sot=anl&sdt=cl&cluster=scoprefnameuid%2c%22Savini%2c+G.%2336828804500%22%2ct&sl=31&s=AU-ID%28%22Pii%2c+Youry%22+23092297600%29&origin=resultslist&zone=leftSideBar&editSaveSearch=&txGid=f08b73f051721f66b46274f607566b47>

DOI: 10.17660/ActaHortic.2018.1217.48
DOI: 10.1016/j.scienta.2018.06.024

Publications

Scientific production is documented by 50 Scopus-listed documents (31.01.2020, H-Index 17, Number of Citations: 943) and more than 60 contributions at national and international congresses.

Main research topics: i) study of the interactions between plant, soil and microorganisms aimed at improving the uptake and use of mineral nutrients; ii) study of the physiological and molecular responses in plants subjected to variable nutrients availability; iii) processes involved in the development of the symbiosis between legume plants and soil rhizobia.

Awards

Best poster at national and international events

1. Best Poster Award at SICA International PhD Winter School, Palermo 11-14 February 2019. Feil S.B., **Pii Y.**, Valentinuzzi F., Tiziani R., Mimmo T., Cesco S. Copper

toxicity affects the uptake of phosphorus cucumber plants

2. Best Presentation Award at XLIV ESNA Meeting, Brno (Czech Republic), 3-6 September 2015. Valentinuzzi F., **Pii Y.**, Vigani G., Lehmann M., Cesco S., Mimmo T. Metabolomics and root exudation traits of strawberries as affected by iron and phosphorus deficiency.
3. Best Poster Award XXXII at convegno nazionale Società Italiana di Chimica Agraria, Bolzano, 7-9 Settembre 2014. Fijan R., Terzano R., Gattullo C.E., Valentinuzzi F., **Pii Y.**, Pinton R., Tomasi N., Medici L., Cesco S., Mimmo T. Ruolo degli essudati radicali nella mobilizzazione del Fe da un suolo calcareo: effetto carenza, substrato e specie vegetale.
4. Best Poster Award at XLIII ESNA Meeting, Bolzano, 3-6 September 2014. **Pii Y.**, Penn A., Mimmo T., Tomasi N., Terzano R., Crechio C., Cesco S. Plant-microorganism-soil interactions influence the Fe acquisition process by cucumber plants.
5. Best Poster Award at XI AISSA Meeting, Piacenza, 2013. Fijan R., Terzano, R., Tomasi, N., Pinton, R., Cesco, S., **Pii, Y.**, Mimmo, T. La Fe carenza in piante di orzo (*Hordeum vulgare* L.): alterazioni mineralogiche indotte da essudati radicali.
6. Best Poster Award at X AISSA Meeting, Palermo 28-29 November 2012. Zamboni A., Zuchi S., **Pii Y.**, Astolfi S., Varanini Z. Modificazioni del trascrittoma di due linee pure di mais a diversa NUE durante l'induzione dell'assorbimento del nitrato
7. Best Poster Award at AGI-SIBV-SIGA Meeting, Assisi (PG) 19-22 September 2011. **Pii Y.**, Molesini B., Pandolfini T. Study of MtN5 transcriptional control and of its involvement in *Medicago truncatula* nodulation pathway.

Scientific Production

2015: the paper "**Pii Y.**, Mimmo T., Tomasi N., Terzano R., Cesco S., Crechio C. (2015). Microbial interactions in the rhizosphere: beneficial influences of plant growth-promoting rhizobacteria on nutrient acquisition process. A review. *Biology and Fertility of Soils*, 51: 403-415" was quoted among the 30 most relevant articles of the top ten journals in the category of SOIL SCIENCES - BIOLOGY AND FERTILITY OF SOILS (<http://blogs.egu.eu/divisions/sss/2016/07/29/top-30-papers-in-the-top-10-journals-of-the-soil-sciences-category-iv-biology-and-fertility-of-soils/>)

List of publications

1. Valentinuzzi F., Pii Y., Porfido C., Terzano R., Fontanella M.C., Beone G.M., Astolfi S., Mimmo T., Cesco S. (2020). Root-shoot-root Fe translocation in cucumber plants grown in heterogeneous Fe provision. *Plant Science*, 293: 110431. DOI: 10.1016/j.plantsci.2020.110431
2. De Conti L., Cesco S., Mimmo T., **Pii Y.**, Valentinuzzi F., Bastos de Melo G.W., Ceretta C.A., Trentin E., Marques A.C.R., Brunetto G. (2020). Iron fertilization to enhance tolerance mechanisms to copper toxicity of ryegrass plants used as cover crop in vineyards. *Chemosphere*, 243: 128298. DOI: 10.1016/j.chemosphere.2019.125298.
3. Salehi H., Miras-Moreno B., Chehregani Rad A., **Pii Y.**, Mimmo T., Cesco S., Lucini L. (2020). Relatively low dosages of CeO₂ nanoparticles in the solid medium induce adjustments in the secondary metabolism and ionic balance of bean (*Phaseolus Vulgaris* L.) roots and leaves. *Journal of Agricultural and Food Chemistry*, in press. DOI: 10.1021/acs.jafc.9b05107.
4. Di Iorio E., Colombo C., Angelico R., Terzano R., Porfido C., Valentinuzzi F., **Pii Y.**, Mimmo T., Cesco S. (2019). Iron oxide-humic acid coprecipitates as iron

- source for cucumber plants. *Journal of Plant Nutrition and Soil Science*, 182:921-933. DOI: 10.1002/jpln.201800207
5. Marastoni L., Sandri M., **Pii Y.***, Valentinuzzi F., Cesco S., Mimmo T. (2019). Morphological root responses and molecular regulation of cation transporters are differently affected by copper toxicity and cropping system depending on the grapevine rootstock genotype. *Frontiers in Plant Science*, 10: 946. DOI: 10.3389/fpls.2019.00946
 6. Valentinuzzi F., Venuti S., **Pii Y.**, Marroni F., Cesco S., Hartmann F., Mimmo T., Morgante M., Pinton R., Tomasi N., Zanin L. (2019). Common and specific responses to iron and phosphorus deficiencies in roots of apple tree (*Malus × domestica*). *Plant Molecular Biology*, 101: 129-148. DOI: 10.1007/s11103-019-00896-w.
 7. Marastoni, L., Tauber, P., Pii, Y., Valentinuzzi, F., Astolfi, S., Simoni, A., Brunetto, G., Cesco, S., Mimmo, T. (2019). The potential of two different *Avena sativa* L. cultivars to alleviate Cu toxicity. *Ecotoxicology and Environmental Safety*. 182: 109430. DOI: 10.1016/j.ecoenv.2019.109430.
 8. Marastoni L., **Pii Y.***, Maver M., Valentinuzzi F., Cesco S., Mimmo T. (2019). Role of *Azospirillum brasilense* in triggering different Fe chelate reductase enzymes in cucumber plants subjected to both nutrient deficiency and toxicity. *Plant Physiology and Biochemistry*, 136:118-126. DOI:10.1016/j.plaphy.2019.01.013.
 9. **Pii Y. ***, Aldrighetti A., Valentinuzzi F., Mimmo T., Cesco S. (2019). *Azospirillum brasilense* inoculation counteracts the induction of nitrate uptake in maize plants. *Journal of Experimental Botany*, 70: 1313-1324. DOI:10.1093/jxb/ery433.
 10. **Pii Y. ***, Marastoni L., Gemassmer E., Valentinuzzi F., Mazzetto F., Mimmo T., Cesco S. (2019). Phytotoxicity alleviation by bacterial species isolated from polycyclic aromatic hydrocarbons (PAHs) contaminated sites. *Environmental Technology and Innovation*, 13: 104-112. DOI:10.1016/j.eti.2018.11.001.
 11. Marastoni L., Sandri M., **Pii Y.**, Valentinuzzi F., Brunetto G., Cesco S., Mimmo T. (2019). Synergism and antagonisms between nutrients induced by copper toxicity in grapevine rootstocks: Monocropping vs. intercropping. *Chemosphere*, 214: 563-578. DOI:10.1016/j.chemosphere.2018.09.127.
 12. 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: 134-142. DOI:10.1016/j.plantsci.2018.08.015.
 13. **Pii Y.***, Graf H., Valentinuzzi F., Cesco S., Mimmo T. (2018). The effects of plant growth-promoting rhizobacteria (PGPR) on the growth and quality of strawberries. *Acta Horticulturae*, 1217: 231-238. DOI:10.17660/ActaHortic.2018.1217.29.
 14. Valentinuzzi F., Cologna K., **Pii Y.***, Mimmo T., Cesco S. (2018). Assessment of silicon biofortification and its effect on the content of bioactive compounds in strawberry (*Fragaria × ananassa* 'Elsanta') fruits. *Acta Horticulturae*, 1217: 307-312. DOI:10.17660/ActaHortic.2018.1217.38.
 15. Mimmo T., **Pii Y.**, Valentinuzzi F., Astolfi S., Lehto N., Robinson B., Brunetto G., Terzano R., Cesco S. (2018). Nutrient availability in the rhizosphere: A review. *Acta Horticulturae*, 1217: 13:27. DOI:10.17660/ActaHortic.2018.1217.2.
 16. Valentinuzzi F., Maver M., Fontanari S., Mott D., Savini G., Tiziani R., **Pii Y.***, Mimmo T., Cesco S. (2018). Foliar application of potassium-based fertilizer improves strawberry fruit quality. *Acta Horticulturae*, 1217: 379-384. DOI:10.17660/ActaHortic.2018.1217.48.
 17. Valentinuzzi F., **Pii Y.**, Mimmo T., Savini G., Curzel S., Cesco S. (2018). Fertilization strategies as a tool to modify the organoleptic properties of raspberry

- (*Rubus idaeus* L.) fruits. *Scientia Horticulturae*, 240: 205-212. DOI:10.1016/j.scienta.2018.06.024.
18. 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: 74-82. DOI:10.1016/j.jcs.2018.07.010.
 19. 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: 86-96. DOI:10.1016/j.plaphy.2018.02.022.
 20. Gattullo C.E., **Pii Y.**, Allegretta I., Medici L., Cesco S., Mimmo T., Terzano R. (2018). Iron mobilization and mineralogical alterations induced by iron-deficient cucumber plants (*Cucumis sativus* L.) in a calcareous soil. *Pedosphere*, 28: 59-69. DOI:10.1016/S1002-0160(15)60104-7.
 21. Crecchio C., Mimmo T., Bulgarelli D., Pertot I., **Pii Y.**, Perazzolli M., Scagliola M., Cesco S. (2018). Beneficial soil microbiome for sustainable agriculture production. *Sustainable Agriculture Reviews*, 31: 443-481. DOI:10.1007/978-3-319-94232-2_9.
 22. Santi C., Molesini B., Guzzo F., **Pii Y.**, Vitulo N., Pandolfini T. (2017). Genome-wide transcriptional changes and lipid profile modifications induced by *Medicago truncatula* N5 overexpression at an early stage of the symbiotic interaction with *Sinorhizobium meliloti*. *Genes*, 8: 396. DOI:10.3390/genes8120396.
 23. Mimmo T., Tiziani R., Valentinuzzi F., Lucini L., Nicoletto C., Sambo P., Scampicchio M., **Pii Y.***, Cesco S. (2017). Selenium biofortification in *Fragaria × ananassa*: Implications on strawberry fruits quality, content of bioactive health beneficial compounds and metabolomic profile. *Frontiers in Plant Science*, 8: 1887. DOI:10.3389/fpls.2017.01887.
 24. **Pii Y. ***, Zamboni A., Dal Santo S., Pezzotti M., Varanini Z., Pandolfini T. (2017). Prospect on ionic signatures for the classification of grapevine berries according to their geographical origin. *Frontiers in Plant Science*, 8: 640. DOI:10.3389/fpls.2017.00640.
 25. 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: 300-307. DOI:10.1016/j.plaphy.2016.10.010.
 26. **Pii Y.**, Alessandrini M., Dall'Osto L., Guardini K., Prinsi B., Espen L., Zamboni A., Varanini Z. (2016). Time-resolved investigation of molecular components involved in the induction of NO₃⁻ high affinity transport system in maize roots. *Frontiers in Plant Science*, 7: 1657. DOI:10.3389/fpls.2016.01657.
 27. Brunetto G., Bastos de Melo G.W., Terzano R., Del Buono D., Astolfi S., Tomasi N., **Pii Y.**, Mimmo T., Cesco S. (2016). Copper accumulation in vineyard soils: Rhizosphere processes and agronomic practices to limit its toxicity. *Chemosphere*, 162: 293-307. DOI:10.1016/j.chemosphere.2016.07.104.
 28. **Pii Y.***, Marastoni L., Springeth C., Fontanella M.C., Beone G.M., Cesco S., Mimmo T. (2016). Modulation of Fe acquisition process by *Azospirillum brasilense* in cucumber plants. *Environmental and Experimental Botany*, 130: 216-225. DOI:10.1016/j.envexpbot.2016.06.011.
 29. Celletti S., Paolacci A.R., 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: 31-38. DOI:10.1016/j.envexpbot.2016.04.004.

30. Gattullo C.E., Allegretta I., Medici L., Fijan R., **Pii Y.**, Cesco S., Mimmo T., Terzano R. (2016). Silicon dynamics in the rhizosphere: Connections with iron mobilization. *Journal of Plant Nutrition and Soil Science*, 179: 409-417. DOI:10.1002/jpln.201500535..
31. **Pii Y. ***, Borruso L., Brusetti L., Cesco S., Mimmo T. (2016). How do plants - having different exudation patterns - shape a similar microbial community? *Research and Reviews: Journal of Botanical Science*, 5: 61-64.
32. **Pii Y. ***, Borruso L., Brusetti L., Crecchio C., Cesco S., Mimmo T. (2016). The interaction between iron nutrition, plant species and soil type shapes the rhizosphere microbiome. *Plant Physiology and Biochemistry*, 99: 39-48. DOI:10.1016/j.plaphy.2015.12.002.
33. Scagliola M., **Pii Y.**, Mimmo T., Cesco S., Ricciuti P., Crecchio C. (2016). Characterization of plant growth promoting traits of bacterial isolates from the rhizosphere of barley (*Hordeum vulgare* L.) and tomato (*Solanum lycopersicon* L.) grown under Fe sufficiency and deficiency. *Plant Physiology and Biochemistry*, 107: 187-196. DOI:10.1016/j.plaphy.2016.06.002.
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Further data

Presentations at scientific conferences (invited or selected, keynote, nature and status of conference)

1. The induction of nitrate uptake in maize plants is counteracted by *Azospirillum brasilense* inoculation. Pii Y, Aldrighetti A, Valentinuzzi F, Mimmo T, Cesco S. Rhizosphere 5 – Shining light on the World beneath our feet, Saskatoon, Saskatchewan, Canada, 7-11 July 2019.
2. *Azospirillum brasilense* contrasta l'induzione dell'assorbimento di nitrato in piante di mais. Pii Y, Aldrighetti A, Valentinuzzi F, Mimmo T, Cesco S. XXXVI Convegno Nazionale della Società Italiana di Chimica Agraria, Reggio Calabria, 24-26 September 2018.
3. Effect of plant growth-promoting rhizobacteria on the growth and quality of strawberry (*Fragaria x ananassa*). **Pii Y**, Graf H, Valentinuzzi F, Cesco S, Mimmo T. VIII ISHS Symposium on Mineral Nutrition of Fruit Crops, Bolzano, 27-30 June 2017.

4. Plant Growth-Promoting Rhizobacteria *Azospirillum brasilense* e processi di acquisizione del Fe in piante di cetriolo. **Pii Y.**, Marastoni L, Springeth C, Fontanella MC, Beone GM, Cesco S, Mimmo T. XXXIV convegno nazionale Società Italiana di Chimica Agraria, Perugia, 5-7 October 2016.
5. Ionomic profile as a tool to assess the physiological status of different plant species. **Pii Y.**, Cesco S., Mimmo T. ICOBTE, Fukuoka (Japan), 10-17 July 2015.
6. Does MtN5 play a double role in the root response to symbiotic and pathogenic microorganisms? **Pii Y.**, Astegno A., Peroni E., Zaccardelli M., Pandolfini T., Crimi M. XLVII Congresso SIFV, Pisa, 30 June- 2 July 2008.
7. Effect of increased IAA synthesis in root nodule of *Medicago* plants. **Pii Y.**, Crimi M., Spina A., Pandolfini T. FISV, Riva del Garda, 22-25 September 2005.

Statement of interest

The scientific formation of dr. Youry Pii, acquired during the academic studies and as research fellow and researcher with a fix-term contract in the disciplinary area of Agricultural Chemistry (SSD AGR/13), is mainly focused on plant nutrition and the rhizosphere processes underlying nutrients uptake. In particular, the study of the complex relationship between plant, soil and microorganisms in the process of nutrient acquisition is one of the central topics in the research activity of dr. Youry Pii. He applied thereby interdisciplinary methodologies, such as molecular biology, genomics, genetics, biochemistry, analytical chemistry and plant physiology, aimed at identifying the molecular mechanisms that control important plant traits related to mineral nutrient acquisition, biotic and abiotic stress tolerance.

In details, the research activity of dr. Youry Pii has been focused on:

- a) Physiological and molecular responses to nutritional deficiencies and heavy metal stresses in model plants (e.g. cucumber, barley, tomato) and in tree plants (e.g. strawberry, apple, grapevine).
- b) Interaction between plants and PGPR to improve plant nutrients uptake/use efficiency.
- c) Rhizosphere metagenomics;
- d) Symbiotic interaction between legumes and rhizobia;

During the last 3 years he was active in networking both at national and international level and fundraising activity applying for the following national and international research calls:

- EUREGIO with the project proposal "Interactions between Clubroot and the Root Microbiota – MICROCLUB";
- CRC call promoted by Free University of Bolzano with the project proposal "Unravelling the effects of *Azospirillum brasilense* on the molecular mechanisms underlying iron acquisition in cucumber (*Cucumis sativus* L.) plants – ALBION";
- Life/Life+ with the project proposal "Virtuous & cost-effective practice to kick organic matter regional markets to improve soil fertility and carbon stock - ORGANIC-M@RKET".

Language competence

Italian: First Language

English: C1 (Certificate in Advanced English (CAE), University of Cambridge, ESOL Examinations)

German: B2 (telc Deutsch B2).

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