

University Academic Curriculum Vitae

Personal information

Name: **Youry Pii**
Place and –date of birth: **Massa Marittima (GR), 17/02/78**
Nationality: **Italian**
Address: **Via Museo 18/A, 39100 Bolzano**
Telephone numbers:
• Mobile: -
• Private: -
• Office: **+39 0471 017164**
Fax: **+39 0471 017009**
E-Mail: **youry.pii@unibz.it**

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

- Tenured Associate Professor, SSD AGR/13, since June 2020, 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, teaching, supervisor of bachelor, master and PhD students.
June 2017 – May 2020	RTD <i>senior</i>	Free University of Bolzano	Post-Doc	Research activity in Agricultural Chemistry, teaching, supervisor of bachelor, master and PhD students.
Since June 2020	Tenured Associate Professor	Free University of Bolzano	Post-Doc	Research activity in Agricultural Chemistry, teaching, 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. *Less than 5 students have completed the evaluation form.*

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 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: Foschini G. "Differential responses of rhizosphere microbial communities to grapevine cultivars resistant to *Plasmopara viticola*". Supervisor Prof. Stefano Cesco, Co-supervisors: Prof. Youry Pii, Prof. Luciano Cavani, Dr. Luigimaria Borruso. Master in International Horticultural Science, University of Bologna.
- AY 2018/19 Candidate: Pondini S. "Pathogenic and phylogenetic strains analysis of *Fusarium tricinctum*". Supervisor Prof. Ornella Francioso Co-supervisors: Dr. Youry Pii, Dr. Antonio Prodi, Dr. Maria Teresa Senatore. Master in International Horticultural Science, University of Bologna.
- 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-carezza 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 carezza 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.
- Member of other commissions:
 - President of the selection commission for a Research Fellow at CREA-VE for the project GESOVIT within the selection n. 21289 (02/01/2020).

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/>
-
- 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 ionic and proteomic profiles of subcellular organelles to unravel mineral elements	20000 €

			allocation and homeostasis in plants subjected to abiotic stresses (IMPRESS)	
--	--	--	--	--

Date granted	Award Holder(s)	Funding Body	Title	Amount received
	Prof. Stefano Cesco - Dr. Youry Pii	ERC- MSCA	Searching for innovative control mechanisms for the clubroot disease - MICROCLUB	Under Evaluation

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. Tamman 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 on 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	Optimised nutrients management from	230000€

		(progetto EU)	livestock production in Alto Adige - LIFE-OPTIMAL2012	
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.
Paper number 1, 3, 9, 14, 15, 18, 21, 22, 28, 30, 32, 45.
- **Prof. Gian Maria Beone**, Dipartimento di Scienze e Tecnologie Alimentari per una Filiera Agro-alimentare Sostenibile, Università Cattolica del Sacro Cuore Sede di Piacenza.
Paper number 3, 31.
- **Prof. Carmine Crecchio**, Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti, Università di Bari.
Paper number 24, 35, 36, 40, 42.
- **Prof. Luigi Lucini**, Dipartimento di Scienze e Tecnologie Alimentari per una Filiera Agro-alimentare Sostenibile, Università Cattolica del Sacro Cuore Sede di Piacenza.
Paper number 5, 26.
- **Prof. Roberto Terzano**, Dipartimento di Scienze del Suolo, della Pianta e degli Alimenti, Università di Bari.
Paper number 2, 3, 6, 14, 18, 21, 23, 30, 33, 40, 42.
- **Prof. Nicola Tomasi**, Dipartimento di Scienze Agroalimentari, Ambientali e Animali, Università degli Studi di Udine.
Paper number 8, 30, 40.
- **Prof. Zeno Varanini e Prof. Anita Zamboni**, Dipartimento di Biotecnologie, Università degli Studi di Verona.
Paper number 27, 29, 44, 45.
- **Dr. Gianpiero Vigani**, Dipartimento di Scienze della Vita e Biologia dei Sistemi, Università di Torino.
Paper number 22, 41.

International Collaborations

- **Prof. Gustavo Brunetto**, Universidade Federal de Santa Maria, Santa Maria, Brasile.
Paper number 4, 9, 13, 18, 30.

- **Prof. Brett Robinson**, College of Science, University of Canterbury, New Zeland.
Paper number 18.
- **Prof. Niklas Letho**, Agriculture and Life Sciences, Lincoln University, New Zealand.
Paper number 18.

Interdisciplinary collaborations (national and international)

- **Dr. Davide Bulgarelli**, Division of Plant Sciences, College of Life Sciences, University of Dundee.
Paper number 24, 37.
- **Prof. Paolo Lugli**, Facoltà di Scienze e Tecnologie, Libera Università di Bolzano.
Paper number 14.
- **Prof. Fabrizio Mazzetto**, Facoltà di Scienze e Tecnologie, Libera Università di Bolzano.
Paper number 12, 14.
- **Gruppo Prof. Tiziana Pandolfini e Dr. Barbara Molesini**, Dipartimento di Biotecnologie, Università degli Studi di Verona.
Paper number 25, 27, 43, 47, 48, 49, 50, 51, 52, 53.
- **Prof. Paolo Sambo**, Dipartimento di Agronomia Animali Alimenti Risorse Naturali e Ambiente, Università degli Studi di Padova.
Paper number 14, 26.
- **Dr. Gianluca Savini**, Cooperativa Sant'Orsola, Pergine Valsugana (TN).
Paper number 19, 20.

Publications

Scientific production is documented by 54 Scopus-listed documents (04.06.2020, H-Index 18, Number of Citations: 1056) 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., Crecchio 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., Crecchio 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. Maver M., Miras-Moreno B., Lucini L., Trevisan M., **Pii Y.**, Cesco S., Mimmo T. (2020). New insights in the allelopathic traits of different barley genotypes: Middle Eastern and Tibetan wild-relative accessions vs. cultivated modern barley. *PLoS ONE*, 15: e0231976. DOI: 10.1371/journal.pone.0231976. Subject Category: Agricultural and Biological Science: Q1. IF 2.776. Number of citation: 0.
2. 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.) seedling. *Journal of Plant Nutrition*, in press. DOI: 10.1080/01904167.2020.1750641. Subject Category: Agronomy and Crop Science, Q3. IF 0.753. Number of citations: 0
3. Valentinuzzi F., Cavani L., Porfido C., Terzano R., Pii Y., Cesco S., Marzadori C., Mimmo T. (2020). The fertilising potential of manure-based biogas fermentation residues: pelleted vs. liquid digestate. *Heliyon*, 6: e03325. DOI: 10.1016/j.heliyon.2020.e03325. Subject Category: Multidisciplinary, Q1. IF 0.840. Number of citations: 0.
4. 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. Subject Category: Plant Science, Q1; Agronomy And Crop Science, Q1. IF 3.785. Number of citations: 0.
5. 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. *Subject Category: Environmental Chemistry, Q1. IF 5.108. Number of citations: 0.*
6. 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. *Subject Category: Agricultural And Biological Sciences, Q1. IF 3.571. Number of citations: 0.*
 7. 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. *Subject Category: Plant Science, Q1. IF 2.057. Number of citations: 0.*
 8. 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. *Subject Category: Plant Science, Q1. IF 4.106. Number of citations: 0.*
 9. 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 x domestica*). *Plant Molecular Biology*, 101: 129-148. DOI: 10.1007/s11103-019-00896-w. *Subject Category: Plant Science, Q1; Genetics, Q1; Agronomy And Crop Science, Q1. IF 3.928. Number of citations: 0.*
 10. 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. *Subject Category: Pollution, Q1. IF 4.527. Number of citations: 2.*
 11. 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. *Subject Category: Plant Science, Q1. IF 3.404. Number of citations: 0.*
 12. **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. *Subject Category: Plant Science, Q1; Physiology, Q1. IF 5.360. Number of citations: 4.*
 13. **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. *Subject Category: Plant Science, Q2; Soil Science, Q2. IF 2.800. Number of citations: 1.*
 14. 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. *Subject Category: Environmental Chemistry, Q1. IF 5.108. Number of citations: 11.*
 15. Sambo P., Nicoletto C., Giro A., **Pii Y.**, Valentinuzzi F., Mimmo T., Lugli P., Orzes G., Mazzetto F., Astolfi S., Terzano R., Cesco S. (2019). Hydroponic solutions for soilless production systems: issues and opportunities in a smart agriculture

- perspective. *Frontiers in Plant Science*, 10: 923. DOI: 10.3389/fpls.2019.00923. *Subject Category: Plant Science, Q1. IF 4.106. Number of citations: 5.*
16. 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. *Subject Category: Plant Science, Q1; Agronomy And Crop Science, Q1. IF 3.785. Number of citations: 2.*
 17. **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. *Subject Category: Horticulture, Q4. Number of citations: 1.*
 18. 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. *Subject Category: Horticulture, Q4. Number of citations: 1.*
 19. 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. *Subject Category: Horticulture, Q4. Number of citations: 1.*
 20. 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. *Subject Category: Horticulture, Q4. Number of citations: 1.*
 21. 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. *Subject Category: Horticulture, Q1. IF 1.961. Number of citations: 1.*
 22. 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. *Subject Category: Biochemistry, Q2; Food Science, Q1. IF 2.452. Number of citations: 9.*
 23. Viganì 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. *Subject Category: Plant Science, Q1. IF 3.404. Number of citations: 5.*
 24. 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. *Subject Category: Soil Science, Q1. IF 3.188. Number of citations: 0.*
 25. 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.
 26. 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. *Subject Category: Genetics, Q1. IF 3.331. Number of citations: 3.*
27. 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. *Subject Category: Plant Science, Q1. IF 4.106. Number of citations: 13.*
 28. **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. *Subject Category: Plant Science, Q1. IF 4.106. Number of citations: 9.*
 29. 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. *Subject Category: Plant Science, Q1. IF 3.404. Number of citations: 9.*
 30. **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. *Subject category: Plant Science, Q1. IF 4.106. Number of citations: 17.*
 31. 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. *Subject Category: Environmental Chemistry, Q1. IF 5.108. Number of citations: 50.*
 32. **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. *Subject Category: Plant Science, Q1; Agronomy And Crop Science, Q1. IF 3.712. Number of citations: 24.*
 33. 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. *Subject Category: Plant Science, Q1; Agronomy And Crop Science, Q1. IF 3.712. Number of citations: 13.*
 34. 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. *Subject Category: Plant Science, Q1. IF 2.057. Number of citations: 13.*
 35. **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.
 36. **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. *Subject Category: Plant Science, Q1. IF*

3.404. Number of citations: 52.

37. 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. *Subject Category: Plant Science, Q1. IF 3.404. Number of citations: 23.*
38. Alegria Terrazas R., Giles C., Paterson E., Robertson-Albertyn S., Cesco S., Mimmo T., **Pii Y.**, Bulgarelli D. (2016). Plant-microbiota interactions as a driver of the mineral turnover in the Rhizosphere. *Advances in Applied Microbiology*, 95: 1-67. DOI:10.1016/bs.aambs.2016.03.001. *Subject Category: Applied Microbiology And Biotechnology, Q1. IF 3.700. Number of citations: 29.*
39. **Pii Y.***, Cesco S., Mimmo T. (2015). Shoot ionome to predict the synergism and antagonism between nutrients as affected by substrate and physiological status. *Plant Physiology and Biochemistry*, 94: 48-56. DOI:10.1016/j.plaphy.2015.05.002. *Subject Category: Plant Science, Q1. IF 3.404. Number of citations: 42.*
40. Bocchini M., Bartucca M.L., Ciancaleoni S., Mimmo T., Cesco S., **Pii Y.**, Albertini E., Del Buono D. (2015). Iron deficiency in barley plants: Phytosiderophore release, iron translocation, and DNA methylation. *Frontiers in Plant Science*, 6: 514. DOI:10.3389/fpls.2015.00514. *Subject Category: Plant Science, Q1. IF 4.106. Number of citations: 20.*
41. **Pii Y.**, Mimmo T., Tomasi N., Terzano R., Cesco S., Crecchio 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. DOI:10.1007/s00374-015-0996-1. *Subject Category: Agronomy And Crop Science, Q1; Soil Science, Q1. IF 4.829. Number of citations: 235.*
42. Valentinuzzi F., **Pii Y.**, Vigani G., Lehmann M., Cesco S., Mimmo T. (2015). Phosphorus and iron deficiencies induce a metabolic reprogramming and affect the exudation traits of the woody plant *Fragaria x ananassa*. *Journal of Experimental Botany*, 66: 6483-6495. DOI:10.1093/jxb/erv364. *Subject Category: Plant Science, Q1; Physiology, Q1. IF 5.360. Number of citations: 45.*
43. **Pii Y.**, Penn A., Terzano R., Crecchio C., Mimmo T., Cesco S. (2015). Plant-microorganism-soil interactions influence the Fe availability in the rhizosphere of cucumber plants. *Plant Physiology and Biochemistry*, 87: 45-52. DOI:10.1016/j.plaphy.2014.12.014. *Subject category: Plant Science, Q1. IF 3.404. Number of citations: 43.*
44. Molesini B., Cecconi D., **Pii Y.**, Pandolfini T. (2014). Local and systemic proteomic changes in *Medicago truncatula* at an early phase of *Sinorhizobium meliloti* infection. *Journal of Proteome Research*, 13: 408-421. DOI:10.1021/pr4009942. *Subject Category: Biochemistry, Q1. IF 3.780. Number of citations: 12.*
45. **Pii Y.**, Alessandrini M., Guardini K., Zamboni A., Varanini Z. (2014). Induction of high-affinity NO₃⁻ uptake in grapevine roots is an active process correlated to the expression of specific members of the *NRT2* and plasma membrane H⁺-ATPase gene families. *Functional Plant Biology*, 41: 353-365. DOI:10.1071/FP13227. *Subject Category: Plant Science, Q1; Agronomy And Crop Science, Q1. IF 2.327. Number of citations: 18.*
46. Zamboni A., Astolfi S., Zuchi S., **Pii Y.**, Guardini K., Tononi P., Varanini Z. (2014). Nitrate induction triggers different transcriptional changes in a high and a low nitrogen use efficiency maize inbred line. *Journal of Integrative Plant Biology*, 56: 1080-1094. DOI:10.1111/jipb.12214. *Subject Category: Plant Science, Q1; Biochemistry, Q1. IF 3.824. Number of citations: 30.*

47. Portioli C., Benati D., **Pii Y.**, Bernardi P., Crucianelli M., Santucci S., Bentivoglio M., Passacantando M. (2013). Short-term biodistribution of Cerium oxide nanoparticles in mice: Focus on brain parenchyma. *Nanoscience and Nanotechnology Letters*, 5: 1174-1181. DOI:10.1166/nnl.2013.1715. *Subject category: Material Science, Q2. IF 2.917. Number of citations: 10.*
48. **Pii Y.**, Molesini B., Pandolfini T. (2013). The involvement of *Medicago truncatula* non-specific lipid transfer protein N5 in the control of rhizobial infection. *Plant Signaling and Behavior*, 8: e24836.1-e24836.4. DOI:10.4161/psb.24836. *Subject Category: Plant Science, Q1. IF 1.644. Number of citations: 9.*
49. **Pii Y.**, Molesini B., Masiero S., Pandolfini T. (2012). The non-specific lipid transfer protein N5 of *Medicago truncatula* is implicated in epidermal stages of rhizobium-host interaction. *BMC Plant Biology*, 12: 233. DOI:10.1186/1471-2229-12-233. *Subject Category: Plant Science, Q1. IF 3.670. Number of citations: 13.*
50. Molesini B., Pandolfini T., **Pii Y.**, Korte A., Spena A. (2012). *Arabidopsis thaliana* AUCSIA-1 regulates Auxin biology and physically interacts with a kinesin-related protein. *PLoS ONE*, 7: e41327. DOI:10.1371/journal.pone.0041327. *Subject Category: Agricultural And Biological Sciences, Q1. IF 2.776. Number of citations: 10.*
51. Molesini B., **Pii Y.**, Pandolfini T. (2012). Fruit improvement using intragenesis and artificial microRNA. *Trends in Biotechnology*, 30: 80-88. DOI:10.1016/j.tibtech.2011.07.005. *Subject Category: Biotechnology, Q1. IF 13.747. Number of citations: 29.*
52. **Pii Y.**, Pandolfini T., Crimi M. (2010). Signaling LTPs: A new plant LTPs sub-family? *Plant Signaling and Behavior*, 5: 594-597. DOI:10.4161/psb.11499. *Subject Category: Plant Science, Q1. IF 1.644. Number of citations: 9.*
53. **Pii Y.**, Astegno A., Peroni E., Zaccardelli M., Pandolfini T., Crimi M. (2009). The *Medicago truncatula* N5 gene encoding a root-specific lipid transfer protein is required for the symbiotic interaction with *Sinorhizobium meliloti*. *Molecular Plant-Microbe Interactions*, 22: 1577-1587. DOI:10.1094/MPMI-22-12-1577. *Subject Category: Agronomy And Crop Science, Q1; Physiology, Q1. IF 3.649. Number of citations: 30.*
54. **Pii Y.**, Crimi M., Cremonese G., Spena A., Pandolfini T. (2007). Auxin and nitric oxide control indeterminate nodule formation. *BMC Plant Biology*, 7: 21. DOI:10.1186/1471-2229-7-21. *Subject Category: Plant Science, Q1. IF 3.670. Number of citations: 110.*
55. Frascari D., Pinelli D., Nocentini M., Fedi S., **Pii Y.**, Zannoni D. (2006). Chloroform degradation by butane-grown cells of *Rhodococcus aetherovorans* BCP1. *Applied Microbiology and Biotechnology*, 73: 421-428. DOI:10.1007/s00253-006-0433-3. *Subject category: Biotechnology, Q1. IF 3.670. Number of citations: 32.*
56. Frascari D., Zannoni A., Fedi S., **Pii Y.**, Zannoni D., Pinelli D., Nocentini M. (2005). Aerobic cometabolism of chloroform by butane-grown microorganisms: Long-term monitoring of depletion rates and isolation of a high-performing strain. *Biodegradation*, 16: 147-158. DOI:10.1007/s10532-004-4877-9. ISSN 0923-9820. *Subject Category: Environmental Chemistry, Q2. IF 2.534. Number of citations: 28.*

**Corresponding Author.*

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. Ionom 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).

The undersigned, Youry Pii, C.F. PIIYRY78B17F032N, born in Massa Marittima (GR), on February 17th, 1978, gives his consent to his personal data being processed, within the limits of the legislative decree 196/2003, for formalities connected with the present procedure.

Date, 04/06/2020

Signature
