Academic CV

Andrea Ciurli

Male, born on 26/12/1992 in Pisa (PI), Italy
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Competences

- Plant biochemistry (Western-blot, Electrophoresis, Spectrophotometric quantifications etc.)
- Plant molecular biology (PCR, RT-PCR, real time, microarray expression analysis)
- Soil chemistry (colorimetric elemental quantification and principal soil analyses)
- Soil biochemistry (respiration, toxicity tests, enzyme activities)
- Soil molecular biology (soil rDNA amplification, DGGE)
- Spectroscopy (ICP-MS elemental analyses, particle size analysis – DLS)

Education

- Ph.D. in **Biotechnology**. University of Verona – PhD school of Natural Sciences and Engineering – Department of Biotechnology (Verona, Italy) — Oct. 2017 – Jul. 2021

- MSc.: **Plant and Microbial Biotechnologies.** University of Pisa – Department of Food, Agriculture and Environment (Pisa, Italy) — Apr. 2015 – Jul. 2017

- BSc.: **Agrarian Sciences** University of Pisa – Department of Food, Agriculture and Environment (Pisa, Italy) — Sept. 2011 – Apr. 2015

Research activities

- Project: EIT FOOD 21773 Sustainable fertilizer: “Sustainable fertilizers from beef slaughtering digested sludge” — Gen. 2022 – Dic. 2022
  Supervisor: Prof Claudio Ciavatta.

- Role of $FePO_4$ nanoparticles on Fe and P nutrition in cucumber and soybean and field retention for a sustainable nano-fertilization. — Dic. 2020 – Nov. 2021

- Analysis of biostimulant properties of okara peptidic fractions, part of the project “F2F: Field to field - Valorisation of biomolecules from soybean drink by-products as defence products and biostimulants for an improved sustainability of crops cultivation”
  Supervisor: Prof Zeno Varanini

Ph.D. Research activity

- **$FePO_4$ nanoparticles as source of nutrients: effects on the plant-soil system and evidence for a safe and sustainable nano-fertilization.** The objective of the work was to investigate the effects of $FePO_4$ nanoparticles used as nano-fertilizer in the plant-soil system. Early transcriptomic responses of plants in hydroponics to $FePO_4$ nanoparticles, impact of $FePO_4$ nanoparticles on soil environment and on plant development were evaluated. The research revealed that $FePO_4$ nanoparticles are an available source of nutrients for plants and can be applied without negative consequence on the environment.
  (Joint Project "Nanofert" UniVR-Cerea FCP).
  Ph.D. thesis: https://iris.univr.it/handle/11562/1044499#.YTdXEY77SUk

Publications

- A novel P nanofertilizer has no impacts on soil microbial communities and soil microbial activity. Applied soil ecology. DOI: https://doi.org/10.1016/j.apsoil.2022.104570 — 29 June 2022
- Nitrate Reductase Modulation in Response to Changes in C/N Balance and Nitrogen Source in Arabidopsis. Plant and Cell Physiology. DOI: https://doi.org/10.1093/pcp/pcy065 — 21 March 2018

External laboratories research

- Laboratory of Soil chemistry and biochemistry. Department of Agriculture, Food, Environment and Forestry – (DAGRI). University of Florence. Florence, Italy (Prof. Giancarlo Renella) — Mar.–Apr. 2019
- Laboratory of microbiology and soil molecular biology. CREA-AA, former Council for Agricultural Research. Florence, Italy (Dr. Roberta Pastorelli) — Jan.–Feb. 2019
- Cell Structure and Function II, Yamaguchi and Sato Lab. Faculty of Science and Graduated School of Life Science, Hokkaido University, Sapporo, Japan (Prof. Junji Yamaguchi) — Jul.–Oct. 2016.
- Biophysics institute. National Research Council of Pisa (CNR), Italy (Prof. Paolo Gualtieri) — Oct. 2014–Jan. 2015

Conferences/Presentations

- Oral presentation at Nano-Day IV, session: Nanotechnologies and nanomaterials in agriculture and food production. University of Milano Bicocca, Milan, Italy. — 11 Dec. 2019
- Oral presentation at First Joint Meeting on Soil and Plant System Sciences (SPSS 2019): Natural and Human-induced Impacts on the Critical Zone and Food Production. CIHEAM Bari, ITALY. — 23 Sept. 2019
- Oral presentation at Nanoinnovation 2019, workshop "AgriNano techniques", Current Nano perspectives in the Agri-Food sectors. La Sapienza University of Rome, Italy. — 12 Jun. 2019

Scolarships

- Scholarship from University of Pisa for MSc thesis at Hokkaido University – Graduate School of Life Science (Sapporo, Japan) — Jul.–Oct. 2016

Teaching experiences

- Contract for occasional employment: preparatory course for admission tests at School of Science and Enginering. (Corso SCI18) in General Chemistry. University of Verona. — 16–20 Jul. 2018
- Laboratory tutoring: 24 hour per academic year in Agrochemistry, Bachelor's degree in Viticultural and Oenological Science and Technology. University of Verona. — Academic years: 2017/2018, 2018/2019, 2019/2020

Other roles

- Representative of Ph.D. students of the Department of Biotechnology, University of Verona Oct. 2017–Nov. 2020

Languages

- **Italian** Mother tongue
- **English** C1

Bologna, 13/01/2022