
Curriculum Beatrice Giuntoli

EDUCATION

2009: PhD in Molecular Biotechnologies, Unipi, BIOMolecular Sciences School.
2006: Master in Plant and Microbial Biotechnologies, Unipi, Agriculture Faculty.
2004: Bachelor in Agro-industrial Biotechnologies, Unipi, Agriculture Faculty.
2001-2006: Undergraduate student in Agricultural Sciences and Plant Biotechnology, Scuola Superiore Sant'Anna (SSSA, Pisa).

SCIENTIFIC CV

- Current position: assistant professor in Plant Physiology at the University of Pisa, Department of Biology (RTD-B ex art. 24 l. 240/2010).
- Affiliations: SSSA (Pisa).
- Academic research training: 2014-2017, post-doc fellow in Plant physiology (ssd BIO/04), SSSA (Pisa).
Research topics: investigation of the environmental factors affecting sugarbeet flowering, biotechnological applications of plant oxygen sensing pathways. 2012-2013, post-doc fellow in Crop genetics at the Accademia Nazionale dei Lincei (Rome). 2010-2012, post-doc researcher in Plant physiology, SSSA. Research topic: molecular mechanisms of plant adaptation to hypoxia.
- Research expertise: molecular biology, molecular plant physiology.
- Research interests: Cross-kingdom comparison of hypoxia sensing mechanisms in eukaryotes. Design of synthetic oxygen biosensors for plants, yeast and mammals. Hypoxia signaling during plant development.
- Collaborations: Oxford University Nuffield Department of Medicine (sir P. Ratcliffe), cross-kingdoms mechanisms of hypoxia signaling. SSSA (P. Perata and D. Weits), hypoxia as an exogenous stress and endogenous developmental cue in plants. Universidad Pública de Navarra (A. Zabalza), molecular responses to imidazole herbicide treatments. University of Torino (G. Vigani), investigation of multisensors of environmental stresses. Nottingham University (M. Holdsworth) and RWTH University Aachen (J. T. van Dongen), characterization of N-end rule substrates in plants. UC Riverside (J. Bailey-Serres), hypoxic regulation in plants. University of Pisa (B. Mennucci), modeling of biosensor components for plants.
- Participation to funded projects: 2017-2020, "ETHERNA- Engineered Theranostics for HEaRt and Neuronal Ageing" (Fondazione Pisa). 2014-2016, "N-vironment - The role of the N-end rule pathway in controlling plant response to the environment" (ERA-CAPS).

TEACHING

Lecturer in Plant Physiology (Unipi, AY 2018/19). Lecturer in Synthetic biology (SSSA, AY 2015/16 and 2017/18). Laboratory trainer in Plant Physiology (Unipi, AY 2017/18) and Molecular Biology (SSSA, AY 2013/14).
PhD Students supervised: Mikel Lavilla Puerta (synthetic N-end rule-dependent pathway in yeast), Luca Piccinini (small molecule biosensors for plants), Haytham Hamedeh (submergence responses in crops), Sergio Iacopino (synthetic oxygen sensors for plants), Vinay Shukla (hypoxia in root development), Liem Bui (molecular regulation of low oxygen responses in plants).

TITLES

Top scientific publications

- 1.Shukla V et al. (2019) Mol Plant. doi: 10.1016/j.molp.2019.01.007.
- 2.Iacopino S et al. (2018) Plant Physiol. doi: 10.1104/pp.18.01003
- 3.Giuntoli B, Perata P (2018) Plant Physiol. doi: 10.1104/pp.17.01225.
- 4.Giuntoli B et al. (2017) Plant Cell Environ. doi: 10.1111/pce.13037.
- 5.Weits DA et al. (2014) Nature Comm. doi: 10.1038/ncomms4425.
- 6.Giuntoli B et al. (2014) PLoS Biol. doi: 10.1371/journal.pbio.1001950.
- 7.Licausi F et al. (2011) Nature. doi: 10.1038/nature10536.

Selected oral communications in conferences

- *Giuntoli B, et al. Development of a synthetic molecular oxygen sensor in plants. XV FISV Congress, Sapienza University of Rome, 18-21/9/2018.
- *Giuntoli B, et al. Regulation of oxidative stress responses by the ERFVII factors in Arabidopsis thaliana. 12th ISPA Conference, Copenhagen, 5-8/9/2016.
- *Giuntoli B, et al. The Arabidopsis trihelix transcription factor HRA1 attenuates transcriptional activation by the low-oxygen sensor RAP2.12. 11th ISPA Conference, IRRI Headquarters, Philippines, 6-11/10/2013.