

## **CV of Dr Giorgio Perrella**

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### **PRESENT AND PAST APPOINTMENTS**

2022-present: Assistant Professor (RTD-B) in Genetics, University of Milan (IT)

2019-2022: Junior Group Leader/Researcher, ENEA, Trisaia Research Centre (IT)

2016–2019: Post-Doctoral Research Associate, Kaiserli Lab, University of Glasgow (UK)

2010–16: Post-Doctoral Research Associate, Amtmann Lab, University of Glasgow (UK)

2008–10: Post-Doctoral Research Fellow, Gutierrez-Marcos Lab, University of Warwick (UK)

### **EDUCATION**

2005-08: PhD Plant Genetics, Conicella Lab, University of Naples, (IT)

2006-07: Visiting PhD Student, Franklin Lab, University of Birmingham (UK)

1999-04: B.Sc. and Master in Plant Biotechnology University of Naples, (IT)

1994-99: High School, Classic Lyceum, Plinio Seniore Castellammare di Stabia, (IT)

### **ACADEMIC CONTRIBUTIONS**

2022-Present **Editorial Board Member** of Scientific Reports

2020/01 Guest Lecture at the University of Calabria (IT)

2019/05 Guest Lecture at the University of Basilicata (IT)

2019/03 **Awarded the Marie Skłodowska-Curie Actions Seal of Excellence**

2019-Present **Editorial Board Member** of Plants

2018/10 **Awarded Grant** to participate at the “INDEPTH 3D FISH and Image Analysis” workshop

2019-Present: Reviewer for Journal of Experimental Botany

2012-Present: Reviewer for Plant Physiology

2012-Present: Reviewer for Plant Cell & Environment

2016-Present: **Review Editor** for Frontier in Plant Science

2016-Present: Reviewer for International Journal of Molecular Sciences

2017-Present: Reviewer for Nature Communication

2018-Present: Reviewer for Nature Plants

2010-Present: Supervision of Master by Research, PGT and BSc Honours students

2017-2019: Member of the Early Career Researcher Committee at University of Glasgow

2005-06: Organiser of lab classes for “Plant genetics” course

2007-08: Lecture at Genetics and Cytogenetics workshops for undergraduate and master courses

2010-15: Organiser of lab classes for “Extreme Biology-abiotic stress” course

2017-18: Marking of Plant Science research posters and presentations (II Year Bachelor and Master in Food security)

2012- Present: Public engagement activity at Fascination of Plant Day, Braincities and European Night of Researchers

[https://www.youtube.com/watch?v=8OnAS7d62\\_k](https://www.youtube.com/watch?v=8OnAS7d62_k);

[https://www.gla.ac.uk/researchinstitutes/biology/newsevents/mcsbsummernewsletter2017/headline\\_533172\\_en.html](https://www.gla.ac.uk/researchinstitutes/biology/newsevents/mcsbsummernewsletter2017/headline_533172_en.html)

### **PUBLICATIONS (Citations: 683; h-index:11; Source: Scopus)**

**G Perrella**, I Bäurle, M van Zanten (2022) Epigenetic regulation of thermomorphogenesis and heat stress tolerance. *New Phytol* 1.

MA Asensi Fabado, EA Armstrong, L Walker, **G Perrella**, G Hamilton, P Herzyk, ML Gifford, A Amtmann (2022) Cell-type specific transcriptional networks in root xylem adjacent cell layers. *bioRxiv*.

L Lopez, **G Perrella**, O Calderini, A Porceddu, F Panara (2022) Genome-Wide Identification of Histone Modification Gene Families in the Model Legume *Medicago truncatula* and Their Expression Analysis in Nodules. *Plants* 11 (3), 322.

*Giorgio Perrella, PhD*

L Lopez, F Alagna, L Bianco, I De Bari, C Fasano, F Panara, **G Perrella\*** (2021) Plants: sustainable platform for second-generation biofuels and biobased chemicals. Chapter 3 in *Handbook of Biofuels* <https://doi.org/10.1016/B978-0-12-822810-4.00002-6>.

\*Co-corresponding author.

L Lopez, C Fasano, **G Perrella**, P Facella (2021) Cryptochromes and the circadian clock: The story of a very complex relationship in a spinning world. *Genes*. 12(5), 672.

**G Perrella**, A Zioutopoulou, A Hamilton, E Kaiserli (2021) Photobody Detection Using Immunofluorescence and Super-Resolution Imaging in Arabidopsis. *Methods Mol Biol*. 2297:7-19.

P.G.H. de Rooij<sup>1</sup> **G Perrella**<sup>1</sup>, E Kaiserli, and M van Zanten (2020) The diverse and unanticipated roles of histone deacetylase 9 in coordinating plant development and environmental acclimation. *J. Ex. Bot.* Vol. 71, No. 20 pp. 6211–6225, 2020. <sup>1</sup> Equal contribution

P Punzo, A Ruggiero, M Possenti, **G Perrella**, R Nurcato, A Costa, G Morelli, S Grillo, G Batelli (2020) DRT111/SFPS splicing factor controls Abscisic Acid sensitivity during seed development and germination. *Plant Physiol.* June 2020, Vol. 183, pp. 793–807.

**G Perrella\***, A Zioutopoulou, LR Headland, E Kaiserli (2020) The impact of light and temperature on chromatin organisation and plant adaptation. *J. Ex. Bot.* Vol. 71, No. 17 pp. 5247–5255 \*Co-corresponding author.

**G Perrella\***, E Vellutini, A Zioutopoulou, E Patitaki, LR Headland, E Kaiserli (2020) Let it bloom: cross-talk between light and flowering signaling in Arabidopsis. *Physiologia Plantarum* 169: 301–311 \*Co-corresponding author.

L. van der Woude,<sup>1</sup> **G Perrella**<sup>1</sup>, BL Snoek<sup>1</sup>, M van Hoogdaleme, O Novák, MC van Verkd, HN van Kootena, LE Zorna, R Tonckensa, JA Dongusa, M Praata, EA Stoutena, MCG Proveniers, E Vellutini, E Patitaki, U Shapulatov, W Kohlen, S Balasubramanian, K Ljung, AR van der Krole, S Smeekens, E Kaiserli and M van Zanten (2019) HISTONE DEACETYLASE 9 stimulates auxin-dependent thermomorphogenesis in Arabidopsis thaliana by mediating H2A.Z depletion. *Proc. Nat. Acad. Sci. USA*. 10 (116): 25343-25354. <sup>1</sup> Equal contribution

E Kaiserli, **G Perrella**, ML Davidson (2018) Light and temperature shape nuclear architecture and gene expression. *Curr. Opin. Plant Biol.* 45(Pt A):103-111.

**G Perrella**, MLH Davidson, L O' Donnell, AM Nastase, P Herzyk, G Breton, JL Pruneda-Paz, SA Kay, J Chory, E Kaiserli (2018) ZINC-FINGER interactions mediate transcriptional regulation of hypocotyl growth in Arabidopsis. *Proc. Nat. Acad. Sci. USA*. 115(19): E4503-E4511.

DC Haak, T Fukao, R Grene, Z Hua, R Ivanov, **G Perrella** and S Li (2017) Multilevel Regulation of Abiotic Stress Responses in Plants. *Front. Plant Sci.* 8:1564.

**G Perrella** and E Kaiserli (2016) Light behind the curtain: photoregulation of nuclear architecture and chromatin dynamics in plants. *New Phytol.* 212(4):908-919.

MA Asensi-Fabado, A Amtmann, **G Perrella\*** (2016) Plant responses to abiotic stress: The chromatin context of transcriptional regulation. *BBA-Gene Regul. Mech.* 860(1):106-122 \* Corresponding author.

**G Perrella**, C Carr, MA Asensi-Fabado, N Donald, K Paldi, MA Hannah, A Amtmann (2016) The Histone Deacetylase Complex 1 Protein of Arabidopsis has the capacity to interact with multiple proteins including histone 3-binding proteins and histone 1 variants. *Plant Physiol.* 171(1):62-70.

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**G Perrella**, MA Lopez-Vernaza, C Carr, E Sani, V Gossele, C Verduyn, F Kellermeier, MA Hannah, A Amtmann (2013) Histone Deacetylase Complex1 expression level titrates plant growth and abscisic acid Sensitivity in Arabidopsis. *Plant Cell*. 25(9):3491-505.

RA Cigliano, G Cremona, R Paparo, P Termolino, **G Perrella**, R Gutzat, FM Consiglio, C Conicella (2013). Histone deacetylase AtHDA7 is required for female gametophyte and embryo development in Arabidopsis. *Plant Physiol*. 163(1):431-40.

E Sani, P Herzyk, **G Perrella**, V Colot, A Amtmann (2013) Hyperosmotic priming of Arabidopsis seedlings establishes a long-term somatic memory accompanied by specific changes of the epigenome. *Genome Biol*. 14(6): R59.

**G Perrella**, FM Consiglio, RA Cigliano, G Cremona, E Sanchez-Moran, L Barra, A Errico, RA Bressan, FCH Franklin and C Conicella (2010). Histone Hyperacetylation affects meiotic recombination and chromosome segregation in *Arabidopsis*. *Plant J*. 62:796-806.

**G Perrella**, G Cremona, F Consiglio, A Errico, RA Bressan and C Conicella (2006) Screening for mutations affecting sexual reproduction after activation tagging in *Arabidopsis thaliana*. *J. Appl. Genet*. 47:109-111.

#### **PATENTS**

A Amtmann, M Hannah, V Gossele, M Lopez-Vernaza, **G Perrella**, C Verduyn (2014). Methods and means for increasing stress tolerance and biomass in plants. Publication number WO 2014118123 A1.

A Amtmann, **G Perrella**, M Hannah (2017). Methods and means for increasing stress tolerance and biomass in plants. Publication number WO 2017009253 A1.

#### **POSTERS AND PRESENTATIONS (2013-Present)**

C Fasano, N Donald, C Carr, P Herzyk, A Amtmann, **G Perrella**. Unravelling the function of the histone deacetylation machinery during stress transcriptional responses in *Arabidopsis thaliana*. LXIV SIGA Annual Congress "Plant genetic innovation for food security in a climate change scenario" 14-16/09/2021 (Virtual Conference, Selected speaker).

**G Perrella**, C Fasano, N Donald, C Carr, P Herzyk and A Amtmann. Histone Deacetylase Complex 1 modulates stress transcriptional responses during seed germination in *Arabidopsis thaliana*. EPICATCH 12-14/7/2021 (Virtual Conference, Invited speaker).

**G Perrella**, C Fasano, N Donald, C Carr, P Herzyk and A Amtmann. HDC1 regulates stress transcriptional responses during seed germination in *Arabidopsis thaliana*. Plant Genomes in a Changing Environment (Virtual Conference) 12-14/10/2020.

L Lopez., L Daddiego, E Fantini, P Facella, F Alagna, L Bianco, E D'Amico, **G Perrella**, G Perrotta, F Panara. Functional genomics of *Taraxacum* Spp: shedding light on the mechanisms involved in synthesis and regulation of natural rubber and other bioproducts. Proceedings of the LXIII SIGA Annual Congress Napoli, Italy – 10/13/09/2019 ISBN 978-88-904570-9-8.

**G Perrella**, E Vellutini, A Beveridge, G Hamilton, P Herzyk and E Kaiserli. TANDEM ZINC FINGER PLUS3 promotes transcriptional integration of flowering in *Arabidopsis thaliana*. International Symposium on Plant Photobiology, Barcelona (SP) 3-8/06/2019.

**G Perrella**, MLH Davidson, L O'Donnell, AM Nastase, P Herzyk, G Breton, JL Pruneda-Paz, SA Kay, J Chory and E Kaiserli. Novel transcriptional regulators of hypocotyl growth in *Arabidopsis*. GARNet2018 York (UK), 18-19/09/2018.

**G Perrella**, MLH Davidson, L O'Donnell, AM Nastase, P Herzyk, G Breton, JL Pruneda-Paz, SA Kay, J Chory and E Kaiserli. Transcriptional interactions regulate hypocotyl growth in Arabidopsis. International Symposium on Plant Photobiology, Matsue (JP) 15-18/01/2018.

**G Perrella**, MA Asensi-Fabado, C Carr, N Donald, MA Hannah, A Amtmann. HDC1 provides a hub for multiple protein interactions in plant histone deacetylation complexes and interacts with linker histone H1. Gordon Epigenetics Conference, Waltham (MA-USA), 02-07/08/2015.

**G Perrella**, C Carr, MA Hannah, A Amtmann. Unravelling the histone deacetylation machinery of Arabidopsis thaliana. Epigenetics Symposium, Oslo (NO), 09-11/04/2014.

**G Perrella**, MA Lopez-Vernaza, V Gosselé, C Verduyn, C Carr, E Sani, F Kellermeier, MA Hannah, A Amtmann. Histone deacetylation complex 1, a new component of the histone deacetylation machinery of Arabidopsis thaliana. SEB meeting, Valencia (SP), 03/06/07/2013.

#### **IT SKILLS**

Image J; CLC genomics workbench; Vector NTI; DNASTAR; IGB; IGV; LAS X.