

Alma Balestrazzi - Curriculum Vitae

Born in Pietra de' Giorgi (Pavia), 10 November 1961. Degree with honours in Biology at the University of Pavia in 1985. PhD Degree in Genetics and Molecular Biology at the University of Pavia in 1994.

From 2014. Associate Professor in Plant Physiology at the Department of Biology and Biotechnology (DBB) - University of Pavia. 2000-2014. Research position (Plant Physiology) at the Department of Biology and Biotechnology (DBB) - University of Pavia.

Scientific activity

1991. Awarded by an EMBO Short-Term Fellowship for a stage at the Cambridge Laboratories ("John Innes" Centre for Plant Science Research, Norwich, UK), Department of Molecular Genetics (Multinational *Arabidopsis* Genome Research Project). Awarded by a contract of guest scientist from the European Community for a further 3-month stage in the same laboratories. 1994. Awarded by a Long-Term fellowship from the National Research Council. 1996-1998. Awarded by a Post-Doctor Long-Term Fellowship at the University of Pavia.

Membership: International Association for Plant and Cell Tissue Culture & Biotechnology (IAPTC&B), Italian Society of Plant Biology, Federation of European Societies of Plant Biology (FESPB), Italian Society of Horticulture.

Co-author of 86 papers *in extenso*, published on international journals peer-reviewed, 6 articles on books and 130 communications to International and National Congresses.

Main research grants

Principal Investigator in research projects sponsored by CARIPO Foundation, Lombardy Region, Italian Ministry of Agriculture, Italian Ministry of Research, COST Actio

Main Research Topics

Role of DNA repair in the plant response to abiotic stresses.

The research activity carried out by the Plant Biotechnology Group has led to the identification and functional characterisation of novel DNA repair genes involved in DNA repair processes in plants, useful to define the profiles of abiotic stress resistance in crop plants. Research is performed in the model plants *Medicago truncatula*, *Populus alba* and *Petunia hybrida*. In collaboration with ITQB-New University of Lisbon (Portugal), The Czech Academy of Sciences, The Polish Academy of Sciences.

Molecular profiling of seed quality.

The main goal is the identification of molecular indicators of seed vigor. DNA repair mechanisms are activated during the early phase of seed germination (imbibition) when the 'pre-germinative metabolism' is triggered. A working system made with imbibed seeds from model plants (*Medicago truncatula*; *Petunia hybrida*) has been established and it is currently used to validate the role of novel DNA repair genes associated with the induction of 'pre-germinative metabolism'. A parallel investigation is performed, as translational research activity, using seeds from horticultural and cereal species of commercial relevance, in collaboration with national and foreign Seed Companies.

Teaching activity

Bachelor and Master Degrees. 1997/1998. Plant Biotechnology, University of Ferrara. 2001/2004. Plant Biotechnology, University of Pavia. 2005/2007. Plant Biotechnology and Plant Physiology, University of Pavia. Plant Molecular Physiology, University of Modena and Reggio Emilia. 2007/2010. Plant Physiology, University of Pavia. 2009/2016. Molecular Techniques for the Conservation of Biodiversity, University of Pavia. 2014/2017. Plant Molecular Biology and Biotechnology, University of Pavia. 2015/2017 Applied Plant Molecular Techniques and Laboratory, University of Pavia.

PhD. Doctorate program in Genetics, Molecular and Cellular Biology, University of Pavia - Member of the Proponents Board, PhD thesis supervision. External Reviewer for PhD thesis (CSIR-Institute of Himalayan Bioresource Technology, Palamopur, India; Guru Nanak Dev University, Amritsar-Punjab, India). External Advisor, International PhD Plants for Life ITQB-Nuova Università di Lisbona (Oeiras-Portogallo), progetto PD/BD/13474/2015.