Roberto Barbato

Curriculum vitae

PERSONAL DATA

Born: Santa Maria di Sala (VE)

Residence: Alessandria

BIO AND EDUCATION

Laurea Diploma in Biology at the University of Padova in 1983 and PhD in Biology in 1989. From 1989 to 1991 post doc at Department of Biochemistry at Impertial College of London and then at the Department of Biology, University of Turku (Finland) and Biological Research Center, Szeged, (Hungary).

UNIVERSITY CAREER

2001-	Full Professor, Università del Piemonte Orientale
1998-2001	Associate Professor, Università del Piemonte Orientale
1991-1998	Research Technician, University of Padova

UNIVERSITY POSITIONS

2016-	Vicerector - Scientific Research of the Università del Piemonte Orientale
2015-	Chairman of the laurea course in Biological Sciences (first level), Università del Piemonte Orientale
2015-	Chairman of the Laurea course in Biology (second level), Università del Piemonte Orientale
2013-2015	Chairman of Research Commettee of DiSIT and member of Ateneum Research Board
2009-2012	Chairman of the laurea course on 'Environmental Sciences and territory management' Università del Piemonte Orientale
2008-2011	Member of the Evaluation Board of the Conservatory of Music 'Antonio Vivaldi', Alessandria
2007-2010	Chaiman of the Faculty Library of the Facoltà di Scienze MFN and member of the Library Ateneum Board of the Ateneo, Università del Piemonte Orientale

SCIENTIFIC POSITIONS

2015-	Member of the Editorial Board of Plant Physiology and Biochemistry
2001-2003	Member of the executive commettee of the Italian Society of Photobiology

MAIN FIELDS OF INTEREST

1. Photosynthesis
2. Photoprotection
3. Salt stress
4. Thylakoid membrane organization
5. PAM fluorometry and time resolved fluorescence

CURRENT ISSUES OF RESEARCH

1. **Molecular mechanisms of photoprotection in Arabidolpsis thaliana –** Even though light is the driving for of photosynthesis, it may represent a risk factor, which may limit productivity in crop plants. Understanding the molecular mechanisms by which plants protect themselves from excess and from very dangerous fluctuating light, is a main goal in modern plant physiology

2. **Tolerance to abiotic stress in Thellungiella halophile –** Thellungiella halophila, a close relative to Arabidopsis thaliana, is now considered a model plant in the field of abiotic stress research. This plant, formerly isolated in environments characterized by a very high salinity, was later shown to tolerate also other kind of abiotic stress, such as drought, heavy metals etc. As an increase of salinity is one main problem from modern agriculture and that most of crop plants are glicophyte (i.e., do not tolerate salt), understanding molecular mechanisms behind this tolerance may be important for development of new cultivar of crop plants with improved resistance to salt

TOP FIVE PAPERS

1. Barbato R, Friso G; Rigoni, F et al. (1992) Structural-changes and lateralredisatribution of Photosystem II during donor-side photoinhibition of thylakoid JOURNAL OF CELL BIOLOGY 119: 325-335
2. Calderone V; Trabucco M; Vujicic A; Battistutta R; Giacometti GM; Andreucci F; Barbato R; Zanotti, G (2003) Crystal structure of the PsbQ protein of photosystem II from higher plants EMBO J 4:900-905 DOI 10.1038/sj.embor.embor923
3. DalCorso G; Pesaresi P; Masiero S; et al. (2008) A complex containing PGRL1 and PGR5 is involved in the switch between linear and cyclic electron flow in Arabidopsis CELL 132: 273-285 DOI: 10.1016/j.cell.2007.12.028
4. Allahverdiyeva Y; Suorsa M Rossi F; et al. (2013) Arabidopsis plants lacking PsbQ and PsbR subunits of the oxygen-evolving complex show altered PSII super-complex organization and short-term adaptive mechanisms PLANT JOURNAL 75: 671-684 DOI: 10.1111/tpj.12230
5. Suorsa M, Rossi F, Tadini L, Labs M, Colombo M, Jahns P, Kater MM, Leister D, Finazzi G, Aro EM, Barbato R, Pesaresi P. (2016) PGR5-PGRL1-Dependent Cyclic Electron Transport Modulates Linear Electron Transport Rate in Arabidopsis thaliana. MOLECULAR PLANT 2016 ;9:271-88. DOI: 10.1016/j.molp.2015.12.001.