

Paola Bonfante

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Nationality: Italian

Degree:

Laurea in Scienze Biologiche cum laude University of Torino, July 8, 1970

Positions

Professor of Plant Biology at the University of Torino

Head of the Department of Plant Biology (October 2006-December 2011)

Past Responsible of the Centro di Studio sulla Micologia del Terreno del CNR- Torino, currently named Sezione di Torino dell'Istituto di Protezione per le Pianta (1995-2009)

Coordinator of the PhD school in Biological and Biotechnological Sciences; Past responsible of the PhD Course in Biology and Biotechnology of Fungi belonging to the School of Science and Technology: <http://dott-sat.campusnet.unito.it/cgi-bin/home.pl>

Teaching position

Natural Sciences (Botany, Environmental Biotechnology) and Biology (Plant Biology)

Research field

Biology of Plant-Microorganism Interactions

She coordinates a research group of more than 15 members: Seven out of them have a permanent position as members of the Department of Plant Biology of the University of Torino and of the National Council of Research (Soil Mycology - Institution of Plant Protection/CNR): the other components are early researchers (PhD students and postdocs). Taken in its whole, the group has a research tradition on the biology of symbiotic associations, mainly mycorrhizas, and fungal taxonomy which dates back to 1975. The current main scientific missions of the group are:

To understand the cellular and molecular basis of plant-fungal interactions in mycorrhizas; to investigate the genetic determinants which characterize some mycorrhizal fungi; to exploit their biotechnological potential; to define the fungal biodiversity in soil; to evaluate their impact in natural and agricultural ecosystems; to investigate the fungal interactions with other microorganisms. The expertise on cellular and molecular biology of plant/fungal interactions as well as on dynamics of fungal populations is witnessed by a large number of original, review and technical papers and multiple international collaborations.

Major current scientific projects

Bacterial and fungal microbiomes in rice; Genomics and Functional genomics in mycorrhizal fungi (among which *Tuber melanosporum*, *T. magnatum*, *Glomus intraradices*, *Gigaspora margarita*)

Cellular and molecular interactions between plants and mycorrhizal fungi, with particular attention to signalling and colonization processes; Systemic effects of mycorrhizal fungi on plant traits

Biology of endobacteria living in AM fungi, with particular attention to *Candidatus*

Glomeribacter gigasporarum (sequencing project) and Mollicutes-related BLOs

Biology of the rhizosphere

Projects

Local coordinator of European projects devoted to the effects of GMOs on mycorrhizal and saprotrophic fungi : IMPACT I and IMPACT II (1993-1999), to the identification of useful genetic traits in AM fungi, Genomyca (2001-2004), to the use of AM fungi in Lotus

(INTEGRAL, 2004-2007), to the identification of AM fungi and their endobacteria (TRACEAM); Local coordinator of national projects: Programs of national relevance (2006; 08; 2012); Ministry of Agriculture (SOILSINK, 2006-09); RAISA, MIPA, Truffle Project, Environmental Biotechnology; Functional genomics in Plant-Microbes; Microbes in rice rhizosphere (2011-2013); National coordinator of a CNR project on Soil Microbe biodiversity; Responsible of local projects funded by the University or by CNR , and for the Excellence Center CEBIOVEM, by Regione Piemonte (Poli di Innovazione, Assessorato Montagna), by CRA (Risinnova Project); Coordinator of a Regional project on Converging Biotechnologies (BIOBIT-CIPE, 2008-2012) <http://www.biobits.di.unipmn.it/>; Coordinator of a project on Root Microbiomes for Plant health (Unito- December 2012-2014)
Local Coordinator of many PRIN Projects

Scientific activities

Member of the Scientific Committee of CNR (2012-);
Organizer of many symposia, workshops and meetings on mycorrhizas and symbiotic fungi;
Visiting scientist in Japan (1989). Invited speakers in many international congresses of Mycology, Microbiology, Botany, Biotechnology, Plant Pathology, Cell Biology, Fungal genetics, Genetics, Memorial Symposium for Biology of Symbiosis
Invited to be External examiner (Opponent) for more than 12 PhD Dissertations in Lyon, Dijon, Toulouse, Nancy, Paris, Montpellier, Basel and Fribourg
Member of the Scientific Committee of the Dijon Campus (France)
Member of the Scientific Committee of Plant for Future (Italy)
Organizing committee of the MPMI meeting in Sorrento (2007), 8th International Congress of Plant Pathology (Torino, 2008), Indian-Italian Workshop (November, 2010)

Editorial activities

Editor of Environmental Microbiology (2013-); Associated Editor of Fungal Biology; Board member in international journals (The ISME Journal, New Phytologist, FEMS, European Journal of Histochemistry, Microbial Research) and referee for papers concerning mycorrhizas for different journals (ie. *Plant Cell*, *Plant Journal*, *Plant Physiology*, *Planta*, *Fungal Biology & Genetics*, *PNAS*) and for scientific European and American (NSF) Agencies. Referee for ERC (Senior grants, 2011)

Scientific production

Papers in refereed journals: more than 200 (listed in <http://web086.unito.it/cgibin/bioveg/home.pl> (Persone- Bonfante) and in ISI WEB of Knowledge
In the list of the Top Italian Scientists
http://www.topitalianscientists.org/top_italian_scientists.aspx

Rank

61 Paola Bonfante H- index 53 Italy plant biology (Google scholar: H index 56)

Awards

Fellow of Academy of Sciences of Torino (2000), Academy of Agriculture of Torino (2000), Academia dei Lincei (November 2011)
Award for Plant Biology 2010, Accademia dei Lincei, Roma, June 2010
Award for the French Food Spirit- Science – Paris, December 16, 2010