

Elisa Bona

Curriculum vitae

PERSONAL DATA

Place and date of birth: Canelli (AT), 29th Nov 1976

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BIO AND EDUCATION

- **2010** Specialization in Microbiology and Virology (four years course) at the Università di Genova, Dipartimento di Scienze Chirurgiche e Diagnostiche Integrate (DISC). Title "Molecular characterization of *Pseudomonas* strains producing VIM-1 carbapenemase"
- **2006** Ph.D. in Environmental Science at the Università del Piemonte Orientale "Amedeo Avogadro". Title of the thesis: "Copper effect on *Cannabis sativa*: from field to molecular effect"
- **2002** Degree in Biological Science (Università del Piemonte Orientale) - 107/110 Title of the thesis: "Meristematic activity and nuclear population in *Pisum sativum* plants treated with cadmium".

UNIVERSITY CAREER

2015-2016	Researcher, Università del Piemonte Orientale
2006-2015	Post-doc fellow, Università del Piemonte Orientale

SCIENTIFIC POSITIONS

2012-2015	Associated Editors of the Journal Of Integrated -OMICS.
2016	Member of the editorial board of Microbiology Research

MAIN FIELDS OF INTEREST

1. Soil bacteria
2. Plant Growth Promoting bacteria
3. Yeast
4. Arsenic and heavy metals
5. Proteomic

CURRENT ISSUES OF RESEARCH

1. Proteomic analysis of Plant-microbe interactions with special reference to plant growth-promoting bacteria (PGPB) and arbuscular mycorrhizal (AM) symbiosis;
2. Effects of PGPB and AM fungi on crop quality with particular interest in food quality improvement;
3. Effects of PGPB and AM fungi on plants exposed to biotic (phytopathogenic fungi and phytoplasma) and abiotic (heavy metals) stresses;
4. Analysis of soil quality using microorganisms as bioindicators;
5. Effects of essential oils on opportunistic human pathogen;
6. Proteomic of clinical pathogens.

TOP FIVE PAPERS

1. **Bona E.**, Lingua G., Manassero P., Cantamessa S., Marsano F., Todeschini V., Copetta A., D'Agostino G., Massa N., Avidano L., Gamalero E., Berta G. AM fungi and PGP pseudomonads increase flowering, fruit production, and vitamin content in strawberry grown at low nitrogen and phosphorus levels. *Mycorrhiza* 2014, 25, 181-193 doi: 10.1007/s00572-014-0599-y
2. **Bona E.**, Marsano F., Massa N., Cattaneo C., Cesaro P., Argeese E., Sanità di Toppi L., Cavaletto M., Berta G. Proteomic analysis as a tool for investigating arsenic stress in *Pteris vittata* roots colonized or not by arbuscular mycorrhizal symbiosis. *Journal of Proteomics* 2011, 74, 1338- 1350.
3. **Bona E.**, Cattaneo C., Cesaro P., Marsano F., Lingua G., Cavaletto M., Berta G. Proteomic analysis of *Pteris vittata* fronds: two arbuscular mycorrhizal fungi differentially modulate protein expression under arsenic contamination. *Proteomics* 2010, 10, 3811- 3834.
4. Gamalero E., Pivato B., **Bona E.**, Copetta A., Avidano L., Lingua G., Berta G. Interactions among a fluorescent pseudomonad, an AM fungus and an isolate of *Rhizoctonia solani* affect plant growth and root architecture of tomato plants. *Plant Biosystems* 2010, 144, 3, 582-591.
5. Farinati S., Dal Corso G., **Bona E.**, Corbella M., Lampis S., Cecconi D., Polati R., Berta G., Vallini G., Furini A. Proteomic analysis of *Arabidopsis halleri* shoots in response to the heavy metals Cadmium and Zinc and rhizosphere microorganisms. *Proteomics* 2009, 9, 1-14.

AWARDS

Best Poster Award at COST Plant Proteomics in Europe. Tolerance to arsenic in *Pteris vittata* is increased by arbuscular mycorrhizal fungi: a proteomic study.