

## Solveig Tosi, c.v.

### Personal data

Born: September 20, 1963 in Halden (Norway)

Citizenship: Italy

Work Address: Department of Earth Science and Environments, University of Pavia, via S. Epifanio 14, 27100 Pavia, Italy

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**Fields of Study:** fungal ecology and taxonomy, adaptation to cold extreme environments, biological control fungal agents, fungal bioremediation and biofertilization, antifungal activity of natural extracts, science and education.

### Education and Professional Experience

November 2014 – current. Associate Professor, Department of Earth and Environmental Sciences  
1998-October 2014. Permanent Researcher, Department of Earth Science and Environments, University of Pavia (Italy)

1991-1998. Technician in the Botanic Garden of Tuscia University (Viterbo, Italy).

April 1990 qualification to practise the profession of Biologist.

October 1989-October 1990. Consultant for a fish farm

September 1988-February 1989. Associate researcher, Biology Institute, Department of Zoology and Marine Chemistry, University of Oslo (Norway), funded by the Research Counsel of Norway. Focus on "Heavy metal concentration in *Tmetonix cicada* (Crustacea, Amphipoda) and *Pandalus borealis* (Crustacea, Dacapoda), from Oslo fjord (Norway)", supervisor Prof. M.I. Abdullah.

October, 27 1987. B.S. and Masters in Biological Sciences at the University of Rome "La Sapienza" (110/110). Thesis:

### Teaching:

**Botany** – Course A and B 6 CFU (Biological Science): A.A. 2013/2014

**Botany - Course B (Mycology) 3CFU** ( Biological Science) .- A.A. 2004/2005; 2005/2006; 2006/2007; 2008/2009; 2009/2010; 2011/2012

**Botanic Laboratory 9 CFU** (C.L. Experimental and Applied Biology) A. A. 2009/10 ; 2011/2012

**Mycology Laboratory 4 CFU** (L.S Natural Science) - A.A. 2007/2008; 2008/2009; 2009/2010;

**Mycology and Fungal Symbiosis - 3 CFU** - (C.L. Science and Technology for Nature) A.A. 2005/2006

**Ornamental Plants 2CFU** (C.L. Science and Technology for Nature).- A.A. 2002/03; 2003/04

**Plant Reproduction 3CFU** (C.L. SCIENCE AND TECHNOLOGY FOR NATURE).- A.A. 2002/2003; 2003/04; 2005/06; 2006/07

### Istitutional Activity

**Vice Presedent of the Bechelor of Science Course in Science and Technology for Nature and Environment, University of Pavia**

## **Member of the Doctoral School Committee**

### **Participant in the following funded Projects**

PRIN 1998 Funghi associati a licheni corticicoli. Correlazioni con le contaminazioni ambientali. 20/12/1998- 12/01/2001

PRIN 2002. Banche dati on-line per l'identificazione automatica di funghi italiani (genere *Pleurotus*, alcune *Aphylophorales*, delle leccete, demaziacei della lettiera, cheratinofili, psicrofili, termofili, parassiti e saprotrofi del riso). 16/12/2002 - 18/01/2005

PRIN 2007. Prodotti naturali e loro analoghi sintetici ad attività antitumorale su specifici target molecolari 22/09/2008 - 19/10/2010 (consuntivo)

PRIN 2009 Isolamento e sintesi di prodotti naturali di differente origine (piante, funghi, stress ossidativo) e studio della loro bioattività contro specifici bersagli molecolari coinvolti in processi infiammatori e di crescita e soppressione dei tumori 17/10/2011 - 17/10/2013  
2007 TEN Telediffusione E Natura Progetto co-finanziato dal MUR Ministero dell'Università e della Ricerca

Progetto PROKURDUP (ASTIL Progetto di Formazione Ricerca Salute Kurdistan-Università di Pavia -progetti di Cooperazione Scientifica e Tecnologica Internazionale nelle aree tematiche agroalimentare, energia-ambiente (ivi incluso il piano d'azione sul clima 2020 dell'UE), salute e manifatturiero avanzato (ivi inclusi nuovi materiali e tecnologie per i beni culturali). a valere sul "Fondo per la promozione di Accordi Istituzionali.DECRETO N. 6737 DEL 2 Luglio 2009

RISINNOVA progetto agroalimentare e ricerca - <http://risinnova.entecra.it/>  
2011

Progetto ECO.BRICK - Recupero dei fanghi biologici per la produzione di laterizi ad elevato isolamento termico e ridotto impatto ambientale."FONDO PER LA PROMOZIONE DELLE ESPRESSIONI DI INTERESSE DEI PRIVATI E AZIONI CONSEGUENTI" ISTITUITO CON DGR N. 7025 DEL 9 APRILE 2008

Progetto AGROMATRICI BIOATTIVE. PROGETTI DI RICERCA INDUSTRIALE E SVILUPPO SPERIMENTALE NEI SETTORI STRATEGICI DI REGIONE LOMBARDIA E DEL MINISTERO DELL'ISTRUZIONE, DELL'UNIVERSITA' E DELLA RICERCA DI CUI AL DECRETO N. 7128 DEL 29 LUGLIO 2011

PROGETTO NAZIONALE DI RICERCA IN ANTARTIDE varie edizioni

Novel cold-active superoxide dismutase from Antarctic fungi:biotechnological production, chemical characterization and application (DO002-172/08), The National Science Fund of Ministry of Education and Science, BULGARIA

Biological monitoring for conservation and restauration of cultural monuments in Bulgaria (VU-B-302/07), The National Science Fund of Ministry of Education and Science, BULGARIA

Progetto "Ricerca, sperimentazione, tecnologie innovative, sostenibilità

ambientale ed alta formazione per il potenziamento della filiera risicola nazionale "POLORISO" finanziato dal Ministero delle Politiche Agricole Alimentari e Forestali (Mipaaf) inizio progetto gennaio 2012

### Member of

**C.I.St.R.E.** (Centro Interdipartimentale di Studi e Ricerche in Etnobiofarmacia Università di Pavia)

**C.R.A.** (Centro di Ricerca sulle Acque) Università di Pavia

Centro Interdipartimentale di Ricerca per la Didattica e la Storia delle Scienze, Università di Pavia

**SBI** (Società Botanica Italiana)

### Collaboration with:

Servizio Fitosanitario Regione Emilia-Romagna, Laboratorio di Nematologia Bologna, (Italy)

Fondazione Edmund Mach di San Michele all'Adige S. Michele all'Adige (TN) –(Italy)

Tuscia University, Viterbo (Italy)

Bulgarian Academy of Science, Sofia (Bulgaria)

Sofia University St. Kl. Ohridski, Sofia (Bulgaria)

Department of Plant Pathology, Nematology Laboratory, Belgrade (Serbia)

Univesidad Tecnica Particular de Loja (Ecuador)

Universidad Politecnica Salesiana de Cuenca y Quito (Ecuador)

Salahaddin University, Erbil (Iraq)

### Most relevant papers

Abbruscato P, **Tosi S**, Crispino L, Biazzi E, Menin B, Picco AM, Pecetti L, Avato P, Tava A. (2014). Triterpenoid glycosides from *Medicago sativa* as antifungal agents against *Pyricularia oryzae*. **Journal of Agricultural and Food Chemistry**, **19;62(46):11030-6**

Gilardoni, Gianluca; Malagon, Omar; **Tosi, Solveig**; et al, (2014). Lactarane Sesquiterpenes from the European Mushrooms *Lactarius aurantiacus*, *L. subdulcis*, and *Russula sanguinaria*. **Natural Product Communications** Vol.9, Issue: 3: 319-322.

Nicola L., **Tosi S.**, Savini D. (2014). In vitro evaluation of nematophagous activity of fungal isolates. **Journal of Basic Microbiology** (Issn:0233-111x) p. 1 - 5 Vol. 54,

Brusotti G., Ibrahim M.F., Dentamaro A., Gilardoni G., **Tosi S.**, Grisoli P., Dacarro C., Guglielminetti M.L., Hussain F.H.S., Caccialanza G., Vidari G. (2013). Chemical composition and antimicrobial activity of the volatile fractions from leaves and flowers of the wild iraqi kurdish plant *Prangos peucedanifolia* Fenzl. **Chemistry & Biodiversity** (Issn:1612-1872) P. 274 - 280 Vol. 10,

Maggi O., **Tosi S.**, Angelova M., Lagostina E., Fabbri A.A., Pecoraro L., Altobelli E., Picco A. M., Savino E., Branda E., Turchetti B., Zotti M., Vizzini A. & Buzzini P. (2013). Adaptation of fungi, including yeasts, to cold environments. **Plant Biosystems** (Issn: 1126-3504) p. 247 - 258 Vol. 147,

Selbmann L. , Egidio E., Isola D., Onofri S., Zucconi L., De Hoog G.S. , Chinaglia S., Testa L., **Tosi S.**, Balestrazzi A., Lantieri A., Compagno R., Tigini V. & Cristina Varese G.C.

(2013). Biodiversity, evolution and adaptation of fungi in extreme environments.

**Plant Biosystems** (Issn:1126-3504) p. 1 - 10 Vol. ,

Pellegrini A., Corneo P.E., Camin F., Ziller L., **Tosi S.**, Pertot I. (2013). Isotope ratio mass spectrometry identifies soil microbial biocontrol agents having trophic relations with the plant pathogen *Armillaria mellea*. **Applied Soil Ecology** (Issn:0929-1393) p. 142 - 151 Vol. 64,

Gloria Brusotti, **Solveig Tosi**, Aldo Tava, Anna M. Picco, Pietro Grisoli, Ilaria Cesari, Gabriele Caccialanza (2013). Antimicrobial and phytochemical properties of stem bark extracts from **Piptadeniastrum africanum** (Hook F.) Brenan. **Industrial Crops and Products** (Issn:0926-6690) p. 612 - 616 Vol. 43 ,

Brusotti G., Cesari I., Gilardoni G., **Tosi S.**, Grisoli P., Picco A.M., Caccialanza G. (2012). Chemical composition and antimicrobial activity of *Phyllanthus muellerianus* (Kuntze) Excel essential oil. *Journal of Ethnopharmacology* (Issn:0378-8741) p. 657 - 662 Vol. 142 ,

Pellegrini A., Corneo P.E., Camin F., Ziller L., **Tosi S.**, Pertot I. (2012). Studying trophic interactions between a plant pathogen and two different antagonistic microorganisms using a <sup>13</sup>C-labeled compound and isotope ratio mass spectrometry. **Rapid Communications in Mass Spectrometry** (Issn:0951-4198) p. 510 - 516 Vol. ,

Persiani Anna Maria, **Tosi Solveig**, Del Frate Giuseppe, Granito Vito Mario, Guglielminetti Maria Lidia, Lunghini Dario, Maggi Oriana, Mulas Bonaria, Pasqualetti Marcella, Picco Anna Maria, Rambelli Angelo, Rodolfi Marinella, Solari Nadia, Tempesta Sabrina (2011). High spots for diversity of soil and litter microfungi in Italy. **Plant Biosystems** (Issn:1126-3504) p. 969 - 977 Vol. 145,

Gilardoni Gianluca, Malagon Omar, Morocho Vladimir, Negri Riccardo, **Tosi Solveig**, Guglielminetti Maria, Vidari Giovanni, Vita Finzi Paola (2011). Phytochemical researches and antimicrobial activity of *Clinopodium nubigenum* (Kunth) Kuntze raw extracts. **Revista Brasileira de Farmacognosia** (Issn:0102-695x) P. 850 - 855 Vol. 21,

Gilardoni Gianluca, **Tosi Solveig** , Mellerio Giorgio , Maldonado Maria Elena, Chiriboga Ximena, Vidari Giovanni (2011). Lipophilic components from the ecuadorian plant *Schistocarpha eupatorioides*. **Natural Product Communications** (Issn:1934-578x) P. 767 - 772 Vol. 6,

**Tosi S.**,Kostadinova N., Krumova E., Pashova S., Dishliiska V., Spassova B., Vassilev S., Angelova M. (2010). Antioxidant enzyme activity of filamentous fungi isolated from Livingston Island, Maritime Antarctica. **Polar Biology** (Issn:0722-4060) p. 1227 - 1237 Vol. 33,

Gocheva Yana G., **Tosi Solveig**, Krumova Ekaterina Tz., Slokoska Lyudmila S., Miteva Jeny G., Spassen V. Vassilev, Angelova Maria B. (2009). Temperature downshift induces antioxidant response in fungi isolated from Antarctica. **Extremophiles** (Issn:1431-0651) p. 273 - 281 Vol. 13,

Longa Claudia, Savazzini Federica, **Tosi Solveig**, Elad Yigal, Pertot Ilaria (2009). Evaluating

the survival and environmental fate of the biocontrol agent *Trichoderma atroviride* sc1 in vineyards in northern Italy. **Journal of Applied Microbiology** (Issn:1364-5072) p. 1549 - 1557 Vol. 106,

Longa Oliveira Claudia, Pertot Ilaria, **Tosi Solveig** (2008). Ecophysiological requirements and survival of a *Trichoderma atroviride* isolate with biocontrol potential. **Journal of Basic Microbiology** (Issn:0233-111x) p. 269 - 277 Vol. 48,

Onofri S., L. Zucconi & **S. Tosi**, 2007. Continental Antarctic Fungi. IHW-Verlag. (**Monografia**)

Gilardoni G., Clericuzio Marco, **Tosi Solveig**, Zandoni Giuseppe, Vidari Giovanni (2007). Antifungal acylcyclopentenones from fruiting bodies of *Hygrophorus chrysodon*. **Journal of Natural Products** (Issn:0163-3864) p. 137 - 139 Vol. 70,

Caretta Giuseppe, **Tosi Solveig**, Piontelli Edoardo, De Hoog Gs (2006). *Phialophora sessilis*, a lithobiont fungus. **Mycotaxon** (Issn:0093-4666) p. 281 - 284 Vol. 95,

**Tosi Solveig**, Onofri Silvano, Brusoni Maura, Zucconi Laura, Vishniac Helen (2005). Response of antarctic soil fungal assemblages to experimental warming and reduction of UV radiation.. **Polar Biology** (Issn:1432-2056) p. 470 - 482 Vol. 28

**Tosi Solveig**, Caretta Giuseppe, Humber R.A. (2004). *Conidiobolus antarcticus*, A new species from Continental Antarctica. *Mycotaxon* (Issn:0093-4666) p. 343 - 347 Vol. 90,

**S. Tosi**; Casado B.; Gerdol R.; Caretta G. (2002). Fungi isolated from Antarctic mosses. **Polar Biology** (Issn:0722-4060) p. 262 - 268 Vol. 25,

**S. Tosi**; Annovazzi L.; Tosi I.; Iadarola P.; Caretta G. (2002). Collagenase production in an Antarctic strain of *Arthrotrys tortor* Jarowaja. *Mycopathologia* (Issn:0301-486x) p. 157 - 162 vol. 153,

Onofri Silvano, Fenice Massimiliano, Cicalini Anna Rita, **Tosi Solveig**, Magrino Anna, Pagano Sabina, Selbmann Laura, Zucconi Laura, Vishniac Helen, Ocampofriedmann Roseli, Friedmann E.Imre (2000). Ecology and biology of microfungi from antarctic rocks and soils.. **The Italian Journal of Zoology** (Issn:1125-0003) p. 163 – 167

Onofri S.; Pagano S.; Zucconi L.; **Tosi S.** (1999). *Friedmanniomyces endolithicus* (fungi hyphomycetes), anam.-gen. and sp. nov., from Continental Antarctica. **Nova Hedwigia** (Issn:0029-5035) P. 175 - 181 Vol. 68,

Onofri S.; **S. Tosi** (1992). *Arthrotrys ferox* sp. nov. A springtail-capturing hyphomycete from Continental Antarctica. **Mycotaxon** (Issn:0093-4666) p. 445 - 451 Vol. 44,

Zucconi L.; S. Pagano; M. Fenice; L. Selbmann; **S. Tosi**; S. Onofri (1996). Growth temperature preferences of fungal strains from Victoria Land, Antarctica. **Polar Biology** (Issn:0722-4060) p. 53 - 61 Vol. 16,

Onofri S.; E. Poerio; P. Serangeli; **S. Tosi**; I. Garuccio; O. Arrigoni (1997). Influence of l-galactonic acid gamma-lactone on ascorbate production in some yeasts. *Antonie Van Leeuwenhoek* (Issn:0003-6072) p. 277 - 280 Vol. 71,